

# A review of the Passandridae of the world (Coleoptera, Cucujoidea).

## III. Genera *Anisocerus*, *Aulonosoma*, *Passandrella*, *Passandrina*, *Scalidiopsis* and *Taphroscelidia*

by

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With 143 figures

### ABSTRACT

The world species of the genera *Anisocerus* (3 spp.), *Aulonosoma* (3 spp.), *Passandrella* (2 spp.), *Passandrina* (2 spp.), *Scalidiopsis* (1 sp.) and *Taphroscelidia* (14 spp.) are reviewed and illustrated. Where necessary, keys are provided for species identification. *Scalidiopsis* gen. n. is erected for *S. youngi* sp. n., other new species are described in *Passandrella* (1 sp.), *Passandrina* (1 sp.) and *Taphroscelidia* (3 spp.). Eight species are synonymised, 14 new and 1 revised combinations are proposed, and *Anisocerus* Westwood nec Audinet-Serville, stat. rev. is taken out of synonymy from *Catogenus* to include 3 Old World tropical / subtropical species formerly assigned to *Catogenus*. For reasons of stability, the name *Anisocerus* Westwood should be rejected, but it is used here pending a ruling of the Commission on Zoological Nomenclature.

### INTRODUCTION

After the revisions of *Passandra* and *Catogenus* (SLIPINSKI 1987, 1989), this third contribution to a review of the Passandridae deals with the remaining genera, except for *Ancistria* which will be treated in part IV (in prep.). *Passandrella* and *Passandrina* contain a few rare, well characterised species from the Neotropics and Madagascar respectively, and there is little mention of them in the literature after the original

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descriptions. Even scarcer is *Scalidiopsis*, known only from a single Brazilian male. Whereas the taxonomic and nomenclatural status of these three genera and their constituent species is clear, that of *Anisocerus*, *Aulonosoma*, *Taphrosclidia* and their constituents is quite confused. The generic nomenclature was discussed by SLIPINSKI (1989) who showed *Aulonosoma* and *Taphrosclidia* to be the correct names for the genera previously known as *Laemotmetus* Gerstaecker and *Scalidia* auct. nec Erichson respectively. He further excluded three old world species from *Catogenus* but did not assign them to another genus. *Anisocerus* Westwood nec Audinet-Serville is an available name to accommodate them; for reasons of nomenclatural stability this name should be rejected as *Anisocerus* is currently used in Cerambycidae. Pending the necessary ruling of the Zoological Commission *Anisocerus* is used in the present paper. The last comprehensive treatment of the genera *Aulonosoma* and *Taphrosclidia* is GROUVELLE'S (1916) who provided keys to all the species known to him. The keys and descriptions of Grouvelle were entirely based on external morphology, and therefore, did not take into account the pronounced variability encountered in these species. Our study shows that the genitalia of both sexes provide good means for species definition and identification.

The revision is based on the examination of available types and material from the following institutions:

BMNH	The Natural History Museum, London (R.J.W. Aldridge, R.D. Pope, S.L. Shute);
CNCI	Canadian National Insect Collection, Ottawa (A. Smetana);
DEIC	Deutsches Entomologisches Institut, Eberswalde (L. Dieckmann, L. Zerche);
FMNH	Field Museum of Natural History, Chicago, Illinois (A.F. Newton, Jr.);
FSCA	Florida State Collection of Arthropods, Gainesville (M.C. Thomas);
ICCM	Carnegie Museum of Natural History, Pittsburgh, Pennsylvania (J.E. Rawlins);
JBSC	J. Stribling Collection;
LSUC	Louisiana State University, Baton Rouge, Louisiana (V. Moseley);
MCSN	Museo Civico di Storia Naturale, Genova (R. Poggi);
MCZC	Museum of Comparative Zoology, Harvard University, Cambridge Massachusetts (S.P. Cover, A.F. Newton, Jr.);
MHNG	Muséum d'Histoire naturelle, Genève;
MNHN	Muséum national d'Histoire naturelle, Paris (N. Berti);
MRAC	Musée royal de l'Afrique centrale, Tervuren (J. Decelle);
MHMB	Naturhistorisches Museum, Basel (M. Brancucci, R. Heinertz, W. Wittmer);
OXUM	Hope Department of Entomology, University Museum, Oxford (G.C. McGavin);
RMNH	Rijksmuseum van Natuurlijke Historie, Leiden (J. Krikken);
TMSA	Transvaal Museum, Pretoria (S. Endrödy-Younga);
USNM	United States National Museum, Smithsonian Institution, Washington, D.C. (T. Erwin);
ZMHB	Zoologisches Museum, Humboldt-Universität, Berlin (F. Hieke, M. Uhlig).
ZMPA	Institute of Zoology, Polish Academy of Sciences, Warszawa;
ZMUM	Moscow State University, Moscow (N.B. Nikitsky);



Measurements were made using a filar micrometer as follows: length, from apical margin of clypeus to apex of elytra (without mandibles); width, across both elytra (maximum); head width, across eyes; head length, from apical margin of clypeus to occipital groove where developed, or to the level of the hind margin of eyes; the frontal width ratio is defined as  $2A/B+B'$  where A is the segment on a line connecting the two outer anterior edges on the head, between the admedian lines, and B and B' outside the admedian lines (fig. 66); pronotal length, from anterior margin to margin of basal foramen; pronotal width, across widest part, excluding anterior angles; elytral length, along suture including scutellum; elytral width, across broadest point of both elytra; antennal length, along straight antenna from base of scape to extreme tip of last antennomere. Where many specimens were available measurements were taken from a selection of specimens, representing both sexes, and exhibiting maximum range of size and form.

Outline drawings were taken from dry preserved specimens with the aid of a camera lucida attached to a Citoval Zeiss dissecting microscope. The internal structures (preserved in glycerine) were drawn with the aid of a camera lucida attached to a Zeiss Amplival microscope.

#### **Anisocerus** Westwood stat. rev.

*Anisocerus* WESTWOOD, 1830: 222. Type species *Anisocerus carinatus* Westwood, by original designation and monotypy; nec *Anisocerus* AUDINET-SERVILLE, 1835: 79; type species *Lamia scopifera* Germar by monotypy (Cerambycidae).  
*Anisoceras* Westwood, misspelling; HOPE, 1840: 131.

**D i a g n o s i s .** Medium sized, elongate, dorso-ventrally flattened Passandridae (9.5-12.0 mm long). Head without distinct median and admedian grooves but with cavities. Jugular plates widely separated, mentum large, triangular. Antenna 11-segmented, moniliform, segments elongate, subcylindrical, segment 11 asymmetrical, subacute apically, indistinctly keeled along outer side. Basal tarsal segment very small, partly covered by tibial apex. Elytra with sutural and humeral lines, and sometimes line 2, grooved.

**D e s c r i p t i o n .** Colour chestnut brown to almost black bicoloured; surface feebly shiny.

Head weakly convex, bearing a shallow depression between frons and clypeus, one deep cavity on the vertex on each side of the mid-line which is shallowly and indistinctly depressed; occipital transverse groove wide and deep; sublateral grooves very shallow and indistinct adjacent to the lateral carina stretching from base of mandibles to occipital groove. Antenna 11-segmented moniliform; segments subcylindrical, segments 3-11 haired, pedicel subglobular, segment 11 elongate, asymmetrical, subacute apically and indistinctly keeled at outer apical margin.

Pronotum ranging from slightly shorter to distinctly longer than wide, distinctly narrowed basally, slightly widening towards apex, always margined laterally; sublateral lines vestigial. Prosternum with sternopleural sutures fully developed; prosternal process weakly to distinctly widening towards apex which is weakly curved towards mesosternum, flat.

Elytra with 6 lines of punctures, sutural and humeral lines always, 2nd sometimes grooved; usually all lines except 1 obsolete apically.

Ventral side of head with widely separated jugular plates, mentum large, triangular. Punctuation on ventral side variable, ranging from very fine to coarse. Mesosternum small

or large, foveolate or flat, smooth or finely punctate. Metasternum with long median groove. Abdominal ventrites simple, punctate laterally; last ventrite bearing an apical groove.

The male genitalia provide useful means of species identification, even though there is a certain amount of variation. The aedeagus has an elongate median lobe with ventral strut and flagellum, and the tegmen is a lightly sclerotised dorsal plate with ventral, setose parameres. The apical piece (in ventral view) of the median lobe and the parameres are figured for all species. Females are known only for *A. dejeani* which has a convoluted sclerotised spermatheca.

**D i s c u s s i o n .** In describing *Catogenus*, WESTWOOD (1830) mentioned an insect which he has seen under the name *Isocerus carinatus* Klug (MSS.?) and which he referred to the new genus *Anisocerus*. This statement was supplemented by a short description of this taxon and by a provenance and depository of the specimen. The mention of "MSS.?" indicates that Westwood was aware that the insect was undescribed. The information provided by Westwood is sufficient to validate the binomial *Anisocerus carinatus* Westwood. Later, NEWMAN (1839) described the same insect (plus one additional specimen) under the name *Catogenus carinatus* Newman wrongly assuming that the species was undescribed. HOPE (1840) listed the species under the amended name *Anisoceras*. Earlier AUDINET-SERVILLE (1835) erected *Anisocerus* for a species of Cerambycidae. *Anisocerus* has been used since in the latter sense (GILMOUR, 1965). It is in the sense of the International Code of Zoological Nomenclature to preserve the latter name and reject *Anisocerus* Westwood. According to Article 23 (b) the case will be referred to the Commission for a ruling but meanwhile the name will be used. In the absence of an available junior synonym a new replacement will have to be created.

*Anisocerus* contains, at present, 2 species in the Afrotropical Region and one species from Burma known only from the male holotype.

*A. dejeani* and *feai* share the similar pronotal shape and the almost smooth middle of head and pronotum. This may express a close phylogenetic relationship of the two.

*Anisocerus* is closely related to *Catogenus* Westwood from which it differs in the slightly more flattened body, particularly the pronotum; the less shiny dorsal surface; the shape of the last antennal segment which is indistinctly keeled apically; elytral lines 3 and 4 which are never grooved; and the presence of an apical rather than subapical groove on the last abdominal ventrite (SLIPINSKI, 1989).

#### CHECKLIST OF THE SPECIES OF *Anisocerus* WESTWOOD

1. *Anisocerus carinatus* Westwood, 1830  
*Catogenus carinatus* Newman, 1839, syn. n.
2. *Anisocerus dejeani* (Grouvelle, 1915), comb. n.
3. *Anisocerus feai* (Grouvelle, 1892), comb. n.

#### KEY TO SPECIES OF *Anisocerus* WESTWOOD

- 1 Pronotum weakly narrowed basally (figs 1, 5) with its lateral margins narrow and posterior angles not markedly prominent. Elytra uniformly brown with punctures in irregular rows faintly visible. Head and pronotum very densely punctured South Africa . . . . . *carinatus*



- Pronotum markedly narrowed basally (figs 3, 4) with its lateral margins wide and posterior angles markedly prominent. Elytra usually bicoloured with punctate rows distinct. Head and pronotum almost smooth medially . . . . . 2
- 2 Elytra with line 2 grooved in basal half, and with reddish apices (fig. 3). Africa. . . . . *dejeani*
- Elytra with line 2 not grooved, punctate with paler spot in middle (fig. 4). Burma. . . . . *feai*

**Anisocerus carinatus** Westwood, 1830

(Figs 1, 2, 5, 6, 9, 13)

*Anisocerus carinatus* WESTWOOD, 1830: 222. Holotype, South Africa: Cape Province, bearing following labels "*Isocerus* K1 *carinatus* P.B.S/*Anisocerus* Westw. Hope, Zool. 92? / Type Col. 253 1/2 *Catogenus carinatus* Newm. Hope Dept Oxford" (OXUM), (examined).

*Passandra tricarinata* DEJEAN, 1837: 340. Nomen nudum.

*Catogenus carinatus* NEWMAN, 1839: 397. Lectotype, South Africa: Cape Province, label data as for *Anisocerus carinatus* Westwood (OXUM), present designation (examined). Syn n.

*Anisocerus carinatus* Westwood; HOPE, 1840: 131, misspelling.

**Description.** Length 9.5-12.0 mm. Colour brown to dark-brown, elytra usually slightly darker than head and pronotum. Head and pronotum densely punctured, feebly shiny, interspaces densely reticulate. Head 0.7-0.8 times as long as wide; median impressed line feebly marked basally; frontal grooves deep, elongate oval (fig. 1); lateral grooves not reaching behind posterior margin of eyes and not joined to weak transverse groove. Eye diameter about as large as width of antennal scape, almost circular. Antenna 0.4-0.5 times body length with antennomeres 3-11 elongate and sparsely setose apically; last antennomere without distinct keel, densely covered with sensilla and microsetae. Pronotum 1.1-1.2 times as long as wide, weakly narrowed basally; anterior and posterior angles not prominent; weakly emarginate; anterior margin weakly arcuate to almost straight; lateral margins very narrow, entire; basal margin almost straight; remnants of sublateral carina near posterior angles distinct and relatively long. Elytra 2.5-2.6 times as long as wide, and 2.5-2.6 times as long as pronotum, almost parallel-sided, obtusely rounded apically; lateral margins invisible from above; humeral carina strong, entire; the first (sutural) line entirely and deeply grooved, lines 2-5 entirely, finely punctate; intervals micropunctate obscuring striae punctures. Prosternum sparsely punctate laterally, mesosternum foveolate medially, laterally at base bordered by a curved line, micropunctate; ventrites micropunctate except for the last that is densely punctate. Male genitalia as in figs 6, 9, 13. Female unknown.

**Distribution.** South Africa. **Material examined:** 27 specimens (BMNH, MNHN, MHNG, TMSA, ZMHB, ZMPA) mostly labeled "Cape of Good Hope" or "Cape Bonae Spei"; South Africa: Cape, Karroo Farm Zwartzkraal, 33.10S/22.32E, 1.ii.1980, E-Y. 1698, ground trap (R. Oosthuizen); Capland, Algoa Bay (Dr Brauns); Cape Colony, Willowmore, 1.iv.1940 (W.G. Kobrow).

**Anisocerus dejeani** (Grouvelle) comb. n.

(Figs 3, 7, 8, 10, 14)

*Catogenus Dejeani* GROUVELLE, 1915: 121. Lectotype, Senegal (MNHN), present designation (examined).

*Passandra dimidiata* GROUVELLE, 1915: 121. Nomen nudum.

**Description.** Length 7-11 mm. Colour usually black with anterior part of head, appendages and elytral apices reddish-brown; very rarely entirely brown. Head and pronotum micropunctate, medially almost smooth, feebly shiny, interspaces reticulate. Head 0.7-0.8 times as long as wide; median impressed line obsolete; frontal grooves deep, narrowly elongate (fig. 3); lateral grooves reaching behind posterior margin of eyes and usually joined to transverse groove. Eye diameter about 1.3 times as large as width of antennal scape, almost circular. Antenna 0.5-0.6 times body length with antennomeres 3-11 elongate and sparsely setose apically; last antennomere without distinct keel, densely covered with sensilla and microsetae. Pronotum as long as wide, markedly narrowed basally and weakly emarginate before the posterior angles; anterior angles acute and prominent; anterior margin weakly arcuate to almost straight; lateral margins wide, entire; basal margin almost straight; remnant of sublateral carina near posterior angles visible and relatively short. Elytra 2.2-2.5 times as long as wide, and 2.8-2.9 times as long as pronotum, almost parallel-sided, obtusely rounded apically; lateral margins invisible from above; humeral carina strong and entire; line 1 (sutural) entirely grooved, 2 deeply grooved in basal half, lines 3-5 entirely, finely punctate; intervals micropunctate but not obscuring striae punctures. Prosternum sparsely punctate laterally; mesosternum flat medially, laterally at base bordered by a curved line, almost smooth; ventrites micropunctate except for the last that is densely punctured. Genitalia as in figs 7, 8, 10, 14.

**Distribution.** Zaire, Cameroun, Senegal, South Africa, Zimbabwe. **Material examined:** 10 specimens (BMNH, MHNG, MNHN, MRAC, TMSA). Zaire. Cameroun: Buffle Noir, 30.x.1977 (B. de Mire). Zimbabwe: Harare [Salisbury], Mashonaland, ix.1900, (G.A.K. Marshall). South Africa: N. Transvaal, Mmaboela estate, 22.40S/28.12E, 8.iii.1973, E-Y:27, mercury light trap (S. Endrödy-Younga); Transvaal, Barberton, xii.1940 (W.G. Kobrow); Mata Mata, Kalah Gemsbok Park, 16.ii.1961 (L. Vart).

***Anisocerus feai* (Grouvelle) comb. n.**

(Figs 4, 11, 12, 15)

*Catogenus Feae* (sic!) GROUVELLE, 1892: 851. Holotype, Burma: Carin Chebà (MCSN), (examined).

**Description.** Length 11 mm. Colour of head, pronotum and elytra brown except for the lighter irregular elongate spot on each elytron. Head and pronotum micropunctate, median pronotal punctures much more widely spaced than those on lateral parts, interspaces feebly reticulate. Head 0.6 times as long as wide; median impressed line obsolete; frontal grooves deep, narrowly elongate (fig. 4); lateral grooves reaching behind posterior margin of eyes and clearly joined to transverse groove. The groove is much deeper and turns into a transverse impression medially. Eye diameter about 1.4 times as large as width of antennal scape, almost circular. Antenna 0.7 times body length with antennomeres 3-11 elongate and setose on dorsal surface; last antennomere without distinct keel, densely covered with sensilla and microsetae. Pronotum 0.95 times as long as wide, markedly narrowed basally and weakly emarginate before the posterior angles; anterior angles somewhat obtuse and prominent; anterior margin weakly arcuate medially and sinuate laterally; lateral borders entire, narrow basal margin almost straight; sublateral carina near posterior angles distinct, about 1/4 pronotal length. Elytra 2.3 times as long as wide, and 2.8 times as long as pronotum, widest at middle, weakly arcuate, narrowed anteriorly and posteriorly, obtusely rounded apically; lateral margins invisible from above; humeral carina strong and almost entire; the first (sutural) line entirely deeply grooved, lines 2-6 entirely and coarsely punctate, line 6 consists of much smaller punctures, punctures 2-4 times as large as pronotal ones on the disc and separated longitudinally by



1-2 diameters; intervals microreticulate. Prosternum and hypomera almost smooth, sparsely micropunctate; prosternal process expanded apically, smooth. Mesosternum with median elongate impression at base, entirely bordered laterally by carinae, disc smooth; metasternum with almost entire median impressed line. Ventrites micropunctate except for the last that is densely punctate. Male genitalia as in figs 11, 12, 15. Female unknown.

**Distribution.** Burma, known from the holotype only.

### **Aulonosoma** Motschulsky

*Aulonosoma* MOTSCHULSKY, 1858: 44. Type species *Aulonosoma tenebrioides* Motschulsky, by monotypy.

*Laetometus* GERSTAECKER, 1871: 45. Type species *Laetometus ferrugineus* Gerstaecker, by monotypy. Synonymised with *Aulonosoma* by SLIPINSKI, 1989: 91.

*Oryzoecus* REITTER, 1876: 37. Type species *Oryzoecus cathartoides* Reitter, by monotypy. Synonymised with *Laetometus* by REITTER, 1880a: 75; 1880b: 509.

*Oryzoecus* Reitter, misspelling; REITTER, 1880a: 75.

*Oryzaecus* Reitter, misspelling; REITTER, 1880b: 509.

*Asana* OLLIFF, 1885: 71. Type species *Trogosita rhyzophagoides* Walker, by original designation and monotypy. Synonymised with *Laetometus* by ARROW, 1904: 36.

**Diagnosis.** Small, subcylindrical Passandridae (3.0-6.5 mm long). Head bearing an indistinct antero-median groove, admedian grooves absent. Antenna 11-segmented, moniliform with indistinct 3-segmented club, scape subglobular. Basal tarsal segment very short, partly hidden by tibial apex, much shorter than segment 2. Elytral lines 1-11 developed, present as grooves or rows of fine punctures.

**Description.** Colour light brown to almost black, sometimes bicoloured; surface usually mat, sometimes elytra somewhat shiny.

Head slightly shorter than wide, weakly curved dorsally, stronger anteriorly, bearing a fine, relatively even punctation. Antero-median impression indistinctly delimited, sometimes deep, stretching from apex of clypeus towards the middle of vertex where it becomes obsolete; sublateral lines absent. Clypeus not separated from frons, always inclined from longitudinal axis of head. Head distinctly margined laterally. Eyes round to oval, flattened to slightly convex. Lower head surface flattened to weakly curved, with long median groove. Apical part separated by sutures as a small rectangular sclerite (fig. 20). Antenna 11-segmented, moniliform with indistinct 3-segmented club; scape subglobular, segments 2-8 subglobular to shortly subcylindrical, segment 3 sometimes elongate, segments 4-8 more or less subequal; club slightly flattened. Segments sparsely, shortly setose. Jugular plate large, narrowly to broadly rounded laterally. Antennal insertion in front of eyes under head margin.

Pronotum as long as to slightly longer than wide, always distinctly margined laterally. Sublateral lines vestigial. Widening from base towards the middle then subparallel or narrowing to apex, in dorsal view. Disc slightly curved, sometimes with indistinct longitudinal impression. Prosternum with complete sternopleural sutures; prosternal process slightly widened towards apex, roundly curved towards mesosternal insertion, flattened. Prosternum coarsely, sparsely punctate.

Elytra with 10 lines which are sometimes grooved. Venter coarsely, sparsely punctate. Last ventrite with large apical transverse groove.

The male and female genitalia provide good means for species identification, particularly the shape of the apical portion of the median lobe and of the spermatheca. The aedeagus consists of the elongate median lobe with a long ventral strut and flagellum, and

the tegmen consists of a dorsal and ventral piece which are mostly membranous except for the margin which is sclerotised, with ventral parameres. The parameres are styliform bearing two long, thick apical setae and a row of finer shorter setae on the inner surface. The apical piece, from ventral view, of the median lobe and the parameres are illustrated for all species. The ostium bursae is little sclerotised, bearing three processes. The spermatheca consists of a globular chamber with a thicker and thinner appendix on either side; the thinner process may be very long and convoluted (in *A. basalis*); it is illustrated for all species.

Secondary sexual characters. The antennae of males are sometimes slightly more setose basally.

**D i s c u s s i o n .** The statement "*Aulonosoma tenebrioides*, subelongata, parallela, ..." indicates that MOTSCHULSKY (1858: 44) regarded *Aulonosoma* as a noun of feminine rather than neuter gender as would be expected from its Greek origin.

*Aulonosoma* includes, at present, 3 Old World tropical species: *A. tenebrioides* and *insignis* are most closely related based on the anteriorly displaced pronotal edges. The phylogenetic relationship suggests that *tenebrioides* is an Oriental species which was subsequently introduced into eastern Africa and Germany.

#### CHECKLIST OF THE SPECIES OF *Aulonosoma* MOTSCHULSKY

1. *Aulonosoma basalis* (Grouvelle, 1916), comb. n.  
*Laemotmetus raffrayi* Grouvelle, 1916, syn. n.  
*Laemotmetus niger* Grouvelle, 1923, syn. n.
2. *Aulonosoma insignis* (Grouvelle, 1891), comb. n.
3. *Aulonosoma tenebrioides* Motschulsky, 1858.  
*Trogosita rhyzophagoides* Walker, 1859.  
*Laemotmetus ferrugineus* Gerstaecker, 1871.  
*Oryzoecus cathartoides* Reitter, 1876.

#### KEY TO SPECIES OF *Aulonosoma*

- 1 Pronotal disc with shallow medial longitudinal depression; basal pronotal edges not much displaced anteriorly, basal margin entire, gently curved (fig. 16). Elytral lines 6-9 not grooved, present as rows of punctures. Genitalia as in figs 23, 26, 29, 32. Apical portion of median lobe slender; spermatheca with strongly convoluted chamber. Africa, Saudi Arabia. . . . . *basalis*
- Pronotal disc without medial longitudinal impression; basal pronotal edges distinctly displaced anteriorly, basal margin interrupted laterally, strongly curved (figs 17, 18). Elytral lines 6-9 grooved at least basally (fig. 19). Apical portion of median lobe wide; spermatheca simple. . . . . 2
- 2 Basal pronotal edge distinctly concave (fig. 18). Elytral apex with strong, relatively well defined depression, including lines 1 and 2, otherwise relatively flat (fig. 21). Body shorter than 4.5 mm. Genitalia as in figs 28, 31, 34, 35. Tropical Asia, introduced into eastern Africa and Germany. . . . . *tenebrioides*
- Basal pronotal edge straight or convex (fig. 17). Elytral apex with line 1 strongly and broadly, and other lines weakly grooved (fig. 22). Body longer than 5.0 mm. Genitalia as in figs 24, 25, 27, 30, 33. Tropical Asia. . . . . *insignis*



***Aulonosoma basalis* (Grouvelle) comb. n.**  
(Figs 16, 23, 26, 29, 32)

- Laemotmetus basalis* GROUVELLE, 1916: 21. Holotype, Ethiopia (A. Raffray) (MNHN), (examined).  
*Laemotmetus raffrayi* GROUVELLE, 1916: 22. Lectotype, Ethiopia (A. Raffray) (MNHN), present designation (examined). Syn. n.  
*Laemotmetus humeralis* GROUVELLE, 1916: 22. Nomen nudum.  
*Laemotmetus niger* GROUVELLE, 1923: 253. Lectotype, Kenya: "Shimoni, sur la côte, ix.1911, Station no 9 (Alluaud & Jeannel)" (MNHN), present designation (examined). Syn. n.

**Description.** Length 4.0-4.5 mm. Colour chestnut brown to almost black; surface mostly mat, elytra slightly shiny. Head 0.7-0.8 times as long as wide, finely and evenly punctured, slightly more sparse and coarse on disc and at base; antero-medial longitudinal impression deep and narrow in males, shallow, indistinct and narrow in females. Clypeus in males strongly curved downward and narrowly concave apically, in females weakly inclined, narrowly concave apically. Lower surface of head flatly curved, coarsely punctured. Jugular plates broadly rounded laterally. Longitudinal eye diameter 0.9-1.3 times as long as distance between anterior eye margin and antennal insertion. Antenna 0.3 times body length; segment 1 subglobular, segments 2-8 subcylindrical, becoming slightly larger towards apex, segment 3 elongate and longer than pedicel, segments 9-11 flattened, wider than remaining segments. Pronotum 1.0-1.2 times as long as wide, weakly flattened on disc, bearing a shallow, median, longitudinal impression, stretching almost from base to apex. Basal edge not much displaced anteriorly, basal margin gently curved (fig. 16). Punctuation slightly more sparse and coarse than on head. Elytra 1.8-2.1 times as long as wide, 2.2 times as long as pronotum. Lines 1 and 10 deeply, entirely grooved, lines 2-5 grooved basally, becoming indistinct apically, lines 6-9 present as row of fine punctures; ribs flattened without fine punctures. Genitalia as in figs 23, 26, 29, 32.

**Distribution.** Ethiopia, Tchad, Saudi Arabia, Kenya, Tanzania, South Africa (Transvaal). **Material examined:** 10 specimens (MNHN, MRAC, NHMB, TMSA, ZMHB, ZMPA).

**Comment.** The specimens from Ethiopia, Tchad and Saudi Arabia are brown with less indented longitudinal grooves on head and thorax (types of *L. basalis* and *raffrayi*), the specimens from Eastern and South Africa are almost black with stronger indented transverse grooves on head and thorax (lectotype of *L. niger*). The genitalia of the two forms are sufficiently similar to suggest they are conspecific. *L. niger* and *raffrayi* are therefore synonymised with *basalis*. The differences between the Northern and Southern form may represent clinal variation. More material is needed to confirm this synonymy.

***Aulonosoma insignis* (Grouvelle) comb. n.**  
(Figs 17, 19, 20, 22, 24, 25, 27, 30, 33)

- Laemotmetus insignis* GROUVELLE, 1891: 238. Lectotype, India: Bengale occidental, Kunbir (MNHN), here designated (examined).

**Description.** Length 5.0-6.5 mm. Colour light to dark chestnut brown; surface mostly mat. Head 0.7 times as long as wide, finely and regularly punctured apart from fronto-clypeal sulcus which is almost impunctate; antero-medial, longitudinal impression shallow, wide and indistinct. Clypeus weakly curved downwards, widely

concave apically. Lower head surface flattened, finely punctured. Jugular plates narrowly rounded laterally. Longitudinal eye diameter 1.5-2.2 times as long as distance between anterior eye margin and antennal insertion. Antenna 0.2-0.3 times body length; segments 1 and 2 subglobular, 1 much larger than 2, 3 to 8 shortly cylindrical, each about as wide as long, about as big as pedicel becoming slightly larger and flattened towards apex, segments 9-11 distinctly larger and more transverse than preceding ones. Pronotum 1.0-1.1 times as long as wide, weakly flattened on disc. Basal edge displaced forward, distance from there to basal margin straight or convex (fig. 17). Punctuation coarser and sparser than on head. Elytra 2.0 times as long as wide, 2.3-2.4 times as long as pronotum. Lines 1-10 entirely grooved, costae each with a row of very fine punctures, line 1 strongly impressed apically. Genitalia as in figs 24, 25, 27, 30, 33.

**Distribution.** India (Darjeeling, U. P., Mysore, "East India"), Burma, Vietnam, Bhutan, Nepal, Java. **Material examined:** 17 specimens (CNCI, MHNG, MNHN, NHMB, RMNH, ZMPA).

### ***Aulonosoma tenebrioides* Motschulsky** (Figs 18, 21, 28, 31, 34, 35)

*Aulonosoma tenebrioides* MOTSCHULSKY, 1858: 44. Lectotype, Sri Lanka (Nietner), (ZMUM), present designation (examined).

*Trogosita rhyzophagoides* WALKER, 1859: 53. Syntype(s), Sri Lanka (BMNH), (not examined).  
Synonymised with *Aulonosoma tenebrioides* Motschulsky by SLIPINSKI, 1989: 91.

*Laemotmetus rhyzophagoides* (Walker); ARROW, 1904: 36.

*Laemotmetus ferrugineus* GERSTAECKER, 1871: 45. Syntype(s), Kenya: Mombasa (depository unknown). Synonymised with *Trogosita rhyzophagoides* Walker by ARROW, 1904: 36; synonymised with *Aulonosoma tenebrioides* Motschulsky by SLIPINSKI, 1989: 91.

*Oryzoecus cathartoides* REITTER, 1876: 38. Syntype(s), Germany: Berlin, in stored rice (P. Habelmann) (depository unknown). Synonymised with *Laemotmetus ferrugineus* Gerstaecker by REITTER, 1880a: 75; 1880b: 509.

*Asana rhyzophagoides* (Walker), misspelling; OLLIFF, 1885: 71.

*Laemotmetus rhizophagoides* (Walker), misspelling; ARROW, 1904: 36.

*Trogosita rhizophagoides* Walker, misspelling; ARROW, 1904: 36.

**Description.** Length 3.0-4.5 mm. Light to dark chestnut brown, head and pronotum sometimes slightly darker; surface mostly mat. Head 0.7 times as long as wide; finely, evenly punctate, somewhat denser anteriorly; antero-median, longitudinal impression relatively deep and well-defined, narrow. Clypeus strongly curved downwards, narrowly concave apically. Lower head surface flattened, coarsely punctured. Jugular plates narrowly rounded laterally. Longitudinal eye diameter 1.1-1.4 times as long as distance between anterior eye margin and antennal insertion. Antenna 0.3 times body length; segments 1-8 subglobular or shortly cylindrical, scape much larger than pedicel, segment 3 sometimes slightly elongate, weakly but gradually increasing in size and becoming more transverse towards apex, particularly in larger specimens, segments 9-11 larger and more transverse than remaining segments. Pronotum 1.0 times as long as wide, weakly flattened on disc. Basal edge displaced forward, from there to basal margin distinctly concave (fig. 18). Punctuation coarser and sparser than on head. Elytra 2.0 times as long as wide, 2.3-2.4 times as long as pronotum. Lines 1-10 grooved, becoming very indistinct apically, usually some of the costae bare, without fine punctures, lines 1 and 2 forming a well-defined impression apically. Genitalia as in figs 28, 31, 34, 35.



**Distribution.** Sri Lanka, Taiwan, Sulawesi, Timor, New Guinea, Vietnam, Philippines, and possibly introduced into Kenya, Tanzania, Comores Islands and Germany. **Material examined:** 16 specimens (FMNH, MHNG, MNHN, NHMB, ZMHB, ZMPA).

### **Passandrella Grouvelle**

*Passandrella* GROUVELLE, 1916: 6. Type species *Passandrella visenda* Grouvelle, by monotypy.

**Diagnosis.** Medium sized, subcylindrical Passandridae (5.4-6.4 mm long). Head bearing a well defined longitudinal groove and short, curved, deep admedial grooves. Antenna 10-segmented, segments 6-9 strongly flattened and asymmetrical, 10 flattened, symmetrical, sharply keeled apically. Basal tarsal segment distinctly longer than segment 2. Elytra with lines 1-5 grooved.

**Description.** Colour light to chestnut brown; surface feebly shiny, usually more so on elytra.

Head convex with admedial grooves short, never reaching occipital groove, deep; medial impressed line deep, well defined reaching occipital groove; sublateral grooves reduced anteriorly, finely developed laterally, indistinct at base. Jugular plate large, separated by narrowly triangular mentum. Antenna 10-segmented, with subcylindrical large scape and subglobular much smaller pedicel, segment 3 elongate cuneiform, segments 4 and 5 subquadrate, feebly flattened, 6-9 strongly transverse, flattened and asymmetrical, gradually becoming larger from 6 to 9, segment 10 somewhat longer than wide, strongly flattened, symmetrically rounded apically.

Pronotum about as long as wide, always margined laterally, sublateral lines vestigial; basal fifth strongly constricted thus forming a "neck region". Prosternum with sternopleural sutures always complete; prosternal process parallel-sided, margined, strongly curved, in almost a right angle, towards mesosternal insertion apically; apex widened, flattened or sometimes with longitudinal indentation.

Elytra with lines 1-5 grooved and 6 (humeral) present as row of punctures, only line 1 reaching apex.

Ventral side of head, prosternum and mesosternum coarsely punctate. Metasternum almost impunctate medially, coarsely punctate laterally. Abdominal sternites coarsely punctate, first ventrite with admedial carinae; last ventrite with subapical groove.

The male genitalia provide good characters for species separation. The apical portion of the median lobe (in ventral view), the parameres, the spermatheca and the ostium bursae, where known, are figured.

**Discussion.** *Passandrella* contains two species from Brazil and Panama respectively, known from a few old specimens only.

#### CHECKLIST OF THE SPECIES OF *Passandrella* GROUVELLE

1. *Passandrella tuberculata* sp. n.
2. *Passandrella visenda* Grouvelle, 1916.

#### KEY TO THE SPECIES OF *Passandrella*

- 1 Median groove on head strongly widened apically; admedial grooves narrow. Outer margin of jugular plates with anterior tubercles (fig. 39); lower head surface coarsely punctate; sutures between mentum and jugular plates indistinct. Last ventrite with semicircular subapical groove (fig. 44). Median lobe slightly widening to apex (fig. 45); parameres with an outer basal group of setae (fig. 46).  
..... *tuberculata*

- Median groove on head weakly widened apically; admedial grooves wide (fig. 36, 40). Outer margin of jugular plates straight; lower head surface moderately finely punctate; sutures between jugular plates and mentum distinct. Last ventrite with subapical groove which is indented in the middle (fig. 47). Median lobe with subparallel margins (fig. 48); parameres evenly setose in basal two thirds (fig. 49). . . . . *visenda*

***Passandrella tuberculata* sp. n.**

(Figs 38, 39, 43-46)

**Description.** Length 6.4 mm. Colour of head and prothorax reddish brown, elytra slightly lighter; surface moderately shiny. Head 1.0 times as long as wide; medial groove strongly widened towards apex; admedial grooves deep and narrow; occipital groove shallow with a row of coarse punctures. Clypeus lying in lower plane than frons, short and wide, concave apically. Head finely punctate dorsally, denser anteriorly and laterally. Outer margin of jugular plates with distinct anterior tubercle; jugular plates and mentum coarsely punctate, sutures between jugular plates and mentum indistinct (fig. 39). Pronotum 0.9 times as long as wide, punctation more coarse and sparse, particularly on disc and at base, than on head, relatively irregularly distributed. Marginal ridge passing smoothly into anterior margin. Lower surface of prosternum and mesosternum very coarsely and irregularly punctate. Elytra 1.7 times as long as wide, 2.0 times as long as pronotum; grooves 2-4 not reaching apex; intervals weakly convex bearing micro-punctures. Last ventrite with marginal shallow groove and a subapical one which is semicircular (fig. 44). Genitalia as in figs 43, 45, 46. Female unknown.

**Material examined.** Holotype ♂, Panama, G. Lewis Coll., B. M. 1910-248 (BMNH).

Paratype. Panama: same data as holotype (MHNG).

***Passandrella visenda* Grouvelle**

(Figs 36, 37, 40-42, 47-49)

*Passandrella visenda* GROUVELLE, 1916: 6. Lectotype, Brazil: Province of Goyaz, Rio Verde (MNHN), present designation (examined).

**Description.** Length 5.4-5.5 mm. Colour of head and prothorax chestnut brown, elytra slightly lighter; surface moderately shiny. Head 0.8-0.9 times as long as wide; medial groove weakly widening towards apex; admedial grooves deep and wide; occipital groove shallow with a row of coarse punctures. Clypeus lying in lower plane than frons, short and wide, concave apically. Head finely punctate dorsally, more densely so anteriorly and laterally. Outer margin of jugular plates straight; jugular plates and mentum moderately, finely punctate, sutures between jugular plates and mentum distinct. Pronotum 1.0 times as long as wide, punctation coarser and sparser, particularly on disc and at base, than on head, relatively irregularly distributed. Marginal ridge passing smoothly into anterior margin. Lower surface of prosternum and mesosternum very coarsely and irregularly punctured. Elytra 1.7-1.8 times as long as wide, 2.1 times as long as pronotum; grooves 2-4 not reaching apex; intervals weakly convex bearing micro-



punctures. Last ventrite with marginal shallow groove and a subapical one which is semi-circular and distinctly indented medially (figs 37, 47). Genitalia as in figs 41, 42, 48-49.

**Distribution.** Brazil. **Material examined:** 3 specimens (MNHN).

### **Passandrina Reitter**

*Passandrina* REITTER, 1879: 186. Type species *Passandrina egregia* Reitter, by monotypy.

**Diagnosis.** Medium sized, subcylindrical Passandridae (6-13 mm long). Head bearing median and deep admedian grooves. Antenna 11-segmented, segments 4-10 strongly flattened, transverse, segments 3-7 bearing long setae ventrally, segment 11 flattened, about as long as wide, sharply keeled along outer apical margin, apex pointed. Basal tarsal segment much shorter than segment 2, often partly hidden by tibial apex. Elytra with contrasting spots. Lines 1-5 or 1-6, sometimes finely, grooved.

**Description.** Colour black with yellow contrasting and well-defined spots on elytra and femora; surface feebly to moderately shiny.

Head weakly transverse, convex and distinctly punctate. Median groove shallowly to moderately impressed fading basally and apically. Admedian grooves straight, long and deep. Sublateral grooves present adjacent to lateral ridge, obsolete basally. Occipital groove absent. Antenna 11-segmented, segment 1 large subglobular, segment 2 subcylindrical, feebly transverse, segment 3 elongate, narrow at base strongly widening to apex, segments 4-11 strongly flattened, mostly shiny on dorsal side, segments 4-10 transverse, segments 3-7 bearing long yellowish setae on the ventral surface; segment 11 about as long as wide, sharply keeled on outer apical margin, acute apically. Mentum large triangular, widely separating jugular plates.

Pronotum slightly longer than wide, strongly widened at base, then weakly widened or subparallel almost to apex where it is narrowed, grooved rather than margined laterally; sublateral lines vestigial; basal fifth to third forming a "neck region". Disc bearing medial longitudinal impression which is shallow and indistinct. Prosternum with sternopleural sutures developed; prosternal process distinctly widened almost to apex which is bent to mesosternum, flat otherwise.

Elytra with line 1-5 or 1-6, sometimes feebly, grooved, only line 1 reaching apex; intervals smooth.

Prosternum coarsely, hypomera finely punctate or impunctate. Mesosternum coarsely punctate laterally. Metasternum smooth. Basal abdominal ventrites coarsely, apical finely punctate. Second to 4th visible ventrite with medial indistinct impression and, in males, with admedian humps. Last ventrite with semicircular, transverse preapical groove.

The male genitalia, in ventral view, particularly the apex of the median lobe and the parameres are characteristic for each species.

Secondary sexual characters. The ventral antennal setosity is much denser and longer in males. Males have ventrites 2-4 with admedian humps of specific shape (fig. 53).

**Discussion.** Two species from Madagascar known.

#### CHECKLIST OF THE SPECIES OF *Passandrina* REITTER

1. *Passandrina egregia* Reitter, 1879.
2. *Passandrina sriblingi* sp. n.

KEY TO THE SPECIES OF *Passandrina*

- 1 Pronotum with medial elongate depression deep and coarsely punctate. Each elytron with two yellow spots and 5 grooved lines (fig. 51). . . . . *egregia*  
 – Pronotum with medial elongate depression weak and micropunctate. Each elytron with five orange spots and 6 grooved lines (fig. 52). . . . . *striblingi*

***Passandrina egregia* Reitter**

(Figs 51, 54, 57, 58)

*Passandrina egregia* REITTER, 1879: 187. Lectotype, Madagascar (ZMHB), present designation (examined).

**Description.** Length 6-13 mm. Colour black except for yellow spots on elytra and femora (fig. 51). Head 0.8-0.9 times as long as wide, convex; distinctly punctate, punctures about as large as eye facets, much denser medially; interspaces faintly reticulate; basal impression on clypeus deep, in male more developed than in female. Antenna 0.4 times body length. Pronotum 1.1-1.2 times as long as wide, markedly narrowed basally, narrowly margined; posterior angles prominent, anterior acute; medial elongate depression deep and coarsely punctate, punctures several times larger than those in lateral parts and contiguous; disc antero-laterally with a group of elongate and subcontiguous punctures giving rough appearance. Elytra 2.4-2.5 times as long as wide and about 2.4 times as long as pronotum; each with two yellow spots and five impressed striae; sutural and 5th intervals convex and shiny, intervals 2-4 flat and almost mat. Second ventrite with long, relatively distinct medial groove, and flat distinct tubercle on either side at the hind margin; 3rd ventrite with long and deep medial groove, and tubercle on either side at the hind margin; 4th ventrite with long, deep medial groove and a transverse tubercle on either side at the hind margin. Genitalia as in figs 54, 57, 58.

**Distribution.** Madagascar. **Material examined:** 25 specimens (DEIC, MHNG, MNHN, ZMHB, ZMPA). Madagascar: Tananarive [Ananarivo]; Machatsinjo near Tananarive; Manja Landrana; Andrangolaka; Region of Sakarami; Region of Ankazoabo; Androy.

***Passandrina striblingi* sp. n.**

(Figs 50, 52, 53, 55, 56)

**Description.** Length 6-13 mm. Colour black except for orange contrasting spots on elytra and femora (fig. 52). Head 0.8-0.9 times as long as wide, convex and distinctly punctate, punctures about as large as eye facets, much denser medially; interspaces faintly reticulate; basal impression on clypeus deep, in male more developed than in female. Antenna 0.4 times body length. Pronotum 1.1-1.2 times as long as wide, markedly narrowed basally, narrowly margined; posterior angles prominent, anterior acute; medial elongate depression deep and coarsely punctate, punctures several times larger than those in lateral parts, contiguous; disc with antero-lateral group of elongate, subcontiguous punctures giving rough appearance. Elytra 1.4-2.5 times as long as wide and 2.4 times as long as pronotum; each with two orange spots and six impressed striae; sutural and 5th intervals convex and shiny, intervals 2-4 flat, almost mat. Second ventrite with long, shallow medial groove, hind margin on either side indistinctly raised, not

forming distinct tubercle; 3rd ventrite with long, shallow medial groove, and large tubercles on either side at hind margin; 4th ventrite with long, shallow groove, and transverse large tubercle on either side at hind margin. Male genitalia as in figs 55, 56. Female unknown.

**Material examined.** Holotype ♂, Madagascar: Pt. Maduy, Antsianaka, 1st half of 1892 (Perrot Frères) (MNHN: Oberthür).

Paratypes. Madagascar: 1, same data as holotype; 1, same data but 2nd half of 1893; 1, same data but 2nd half of 1890 (JBSC); 2, Antsianaka, 1st half of 1892 (Perrot Frères) (MHNG, ZMPA); 1, Mahatsinjo near Tananarive (MNHN); 2, Tananarive (MHNG, MNHN).

### **Scalidiopsis gen. n.**

Type species *Scalidiopsis youngi* sp. n.

**Diagnosis.** Medium sized, elongate, slightly flattened Passandridae (8 mm). Head bearing a well-defined longitudinal groove and long straight admedian grooves. Antenna 11-segmented, segments subglobular to subcylindrical, feebly flattened to apex, segment 11 longer than wide, keeled and asymmetrically rounded apically. Basal two tarsal segments subequal in length. Elytra with line 1 grooved to apex, and 2-5 present as rows of punctures, lines 3 and 4 confluent in basal quarter, lines 3+4 and 5 very indistinctly grooved. First ventrite with admedian carinae; last ventrite with subapical, slightly angular groove.

**Description.** Colour chestnut brown to almost black, bicoloured; surface feebly shiny.

Head weakly convex with long straight admedian grooves, medial impressed line deep, well-defined, reaching occipital groove; sublateral grooves following lateral margins, reaching occipital groove at base and ending near mandibular insertion apically, fine throughout (fig. 59). Jugular plates widely separated by large, triangular mentum, slightly convex, angular laterally. Antenna 11-segmented with subglobular to subcylindrical segments, feebly flattened towards the apex, segment 11 longer than wide, distinctly flattened, asymmetrically rounded, sharply keeled apically.

Pronotum longer than wide, always margined laterally, sublateral lines vestigial; basal quarter constricted to form a "neck region" (fig. 59). Prosternum with sternopleural sutures complete; with deep pit in front of coxa; prosternal process widened towards apex, which is weakly bent towards mesosternum, flat.

Elytra with line 1 very deeply and lines 3+4 and 5 indistinctly grooved, lines 2-5 with a row of fine punctures, lines 3 and 4 confluent in basal quarter.

First ventrite with admedian carinae; last ventrite with subapical, slightly angular, groove.

Genitalia without generic characters, female unknown. The ventral view of the apex of median lobe and the parameres are illustrated (figs 60, 61).

**Discussion.** *Scalidiopsis* includes a single species from Brazil. The new genus is most closely related to *Taphrosclidia* and *Passandrella* with which it shares the admedian carinae on the first ventrite and deep pits on the prosternum in front of the coxae. Both characters are judged to be synapomorphies. It differs from both genera in the more flattened body and the long straight admedian lines on the head, from *Passandrella* in the 11-segmented, moniliform antenna, and from *Taphrosclidia* in the relatively shorter pronotum, and the distinctly wider elytra.



CHECKLIST OF SPECIES OF *Scalidiopsis* GEN. N.1. *Scalidiopsis youngi* sp. n.***Scalidiopsis youngi* sp. n.**  
(Figs 59-62)

**Description.** Length 8 mm. Colour dark brown on head and pronotum, elytra at base almost black, remainder chestnut brown; surface moderately shiny. Head 0.8 times as long as wide; evenly finely punctate; occipital groove shallow, angular in the middle. Clypeus separated from frons by round impression, short and wide, lying in the same plane as vertex, straight anteriorly. Lower head surface finely punctate. Pronotum 1.1 times as long as wide, punctation slightly larger and sparser than on head; angled anteriorly. Prosternum finely punctate except for a spot with coarse punctures in front of either coxa. Elytra 2.2 times as long as wide, 2.6 times as long as pronotum; intervals slightly convex each with a row of micropunctures. Mesosternum large, coarsely and irregularly punctate laterally. Metasternum with a few fine punctures. Ventrites sparsely punctate. Male genitalia as in figs 60-62. Female unknown.

**Material examined.** Holotype, Brazil: Amazonas, Manaus 1 km W Taruma Falls, 100 m, 28.ii.1981 (C.W. Young) (ICCM)

**Taphrosclidia** Crotch

*Taphrosclidia* CROTCH, 1873: 44. Type species *Catogenus linearis* LeConte, by monotypy. Synonymised with *Scalidia* auct. nec ERICHSON by GROUVELLE, 1878: 263. SLIPINSKI, 1989: 91.

*Scalidia* auct. (nec *Scalidia* ERICHSON, 1845: 305. Type species *Passandra cylindricollis* Lacordaire, designated by subsequent monotypy by LACORDAIRE, 1854: 397; synonymised with *Catogenus* Westwood by SLIPINSKI, 1989: 91). GROUVELLE, 1878: 263; 1916: 8; CASEY, 1884: 75; KESSEL, 1921: 35; HETSCHKO, 1930: 91; BLACKWELDER, 1945: 423.

*Syssitos* SHARP, 1899: 541. Type species *Syssitos rostratus* Sharp, present designation. Synonymised by GROUVELLE, 1916: 24. HETSCHKO, 1930: 91; BLACKWELDER, 1945: 423.

**Diagnosis.** Small to medium sized, subcylindrical Passandridae (3.5-10.0 mm long). Head bearing deep, well-defined median and admedian grooves. Antenna 11-segmented, moniliform, with subglobular segments becoming slightly flattened and transverse towards apex; scape flattened dorsally, without transverse ridge. Basal two tarsal segments roughly subequal. Elytra with, at most, 4 lines grooved (1-4).

**Description.** Colour brown to black often bicoloured; surface of head and prothorax usually mat; elytra and venter shiny.

Head elongate, curved dorsally, densely and finely punctate. Median line sharp, impressed, often reduced at base and apex. Admedian lines present, short, usually curved apically. Clypeus separated from frons by shallow indistinct or deep, well-defined impression. Lateral carinae very weak. Eyes oval to round, flattened, often variable in size within a species. Lower head surface flattened, coarsely punctate in most species, with basal median impression or longitudinal groove, sides often slightly bulged. Antenna 11-segmented; scape subglobular or slightly angular, flattened dorsally with punctate surface, pedicel shorter and smaller than remaining segments varying from subglobular to transverse, segment 3 sometimes elongate, sometimes subglobular, segments 4-10 subglobular, more flattened and transverse apically, segment 11 strongly flattened, about

as long as wide or longer and irregularly rounded apically, asymmetrical and distinctly keeled on the outer apical margin. Segments weakly setose, in males bearing long and sometimes dense ventral setosity; large males often with inflated flagellar segments.

Pronotum longer than wide, always margined laterally, though sometimes incomplete. Sublateral lines vestigial. Gradually or irregularly widening from base to apex. Prosternum with sternopleural sutures always complete; prosternal process parallel-sided, margined, strongly curved, in almost a right angle, towards mesosternal insertion and widened apically, flattened or sometimes with longitudinal indentation.

Elytra with 5 lines of punctures, line 1 always and 2-4 sometimes grooved. Line 1 stronger and deeper grooved apically.

Ventrally uniform with few diagnostic characters. Punctuation generally coarse, often variable within a species; on hypomeron sometimes distinctly finer or absent. Punctuation on mesosternum usually very coarse and dense. Last ventrite with transverse preapical groove angular or semicircular.

The male and particularly the female genitalia provide good characters for species identification, even though there is a certain amount of variation in the shape and position of the internal structures of the median lobe, and in the number and position of the setae on the parameres. The aedeagus consists of the elongate median lobe with a long ventral strut and flagellum, and the tegmen consisting of a dorsal weakly sclerotised basal piece and ventral, setose parameres. In many species the parameres bear an apical row of spines which are distinctly shorter and thicker than the other setae. The apical portion, from ventral view, of the median lobe and the parameres are illustrated for all species. The weakly sclerotised ostium bursae bears two branches whose length is to a certain degree of taxonomic use. The spermatheca, consisting of a globular capsule and a curved chamber, is illustrated for all species.

Secondary sexual characters. The antennae of males are usually more setose ventrally and, in large males, the flagellar segments often inflated.

**D i s c u s s i o n .** *Taphrosclidia* includes 14 species mostly in tropical America with a few species penetrating into subtropical North and South America. *T. tenuissima*, *atra*, *dentata*, *gounellei* + *rostrata* form a monophyletic group based on the long head and pronotum, the straight pronotal sides, and the presence of only one or two grooved elytral lines. The remaining species form another monophyletic group based on the occipital groove weakly developed or absent. The latter, again, is composed by two probably monophyletic clades: *T. postica*, *contorta* + *filum* share the short clypeus and the ostium bursae with short processes; the remaining species, on the other hand, have the clypeus and frons separated by a deep depression that is considered a synapomorphy. Within this clade *sharpi*, *nigra* + *semicastanea* are closely related based on a transverse impression between the frons and clypeus. All four species groups are widely distributed over tropical and subtropical America.

#### CHECKLIST OF THE SPECIES OF *Taphrosclidia* CROTCH

1. *Taphrosclidia atra* (Grouvelle, 1916), comb. n.
2. *Taphrosclidia atratula* (Grouvelle, 1916), comb. n.
3. *Taphrosclidia contorta* sp. n.
4. *Taphrosclidia dentata* sp. n.
5. *Taphrosclidia filum* (Reitter, 1876), comb. n.  
*Scalidia minuta* Grouvelle, 1916, syn. n.

6. *Taphroscelidia gounellei* (Grouvelle, 1916), comb. n.  
*Scalidia capitalis* Grouvelle, 1916, syn. n.
7. *Taphroscelidia humeralis* (Grouvelle, 1916), comb. n.  
*Scalidia ignota* Grouvelle, 1916, syn. n.
8. *Taphroscelidia linearis* (LeConte, 1863), comb. rev.  
*Syssitos longiceps* Sharp, 1899, syn. n.  
*Syssitos addendus* Sharp, 1899, syn. n.
9. *Taphroscelidia nigra* sp. n.
10. *Taphroscelidia postica* (Grouvelle, 1916), comb. n.
11. *Taphroscelidia rostrata* (Sharp, 1899), comb. n.
12. *Taphroscelidia semicastanea* (Reitter, 1876), comb. n.
13. *Taphroscelidia sharpi* (Grouvelle, 1916), comb. n.
14. *Taphroscelidia tenuissima* (Reitter, 1876), comb. n.

KEY TO SPECIES OF *Taphroscelidia*

- 1 Head more than 1.2 times as long as wide; transverse occipital groove on head deep, well-defined (figs 63, 64). Pronotum more than 1.4 times as long as wide, margins straight in dorsal view (fig. 77). Elytra with only line 1 and, rarely, line 2 grooved (fig. 73). . . . . 2
- Head less than 1.1 times as long as wide; transverse occipital line on head shallow and indistinct or absent (figs 65-68). Pronotum less than 1.4 times as long as wide, margins weakly sinuate or curved in dorsal view (fig. 78). Elytra with lines 1-4 grooved (fig. 74). . . . . 6
- 2 Transverse preapical groove on last ventrite, sometimes irregularly, semicircular. . . . . 3
- Transverse preapical groove on last ventrite distinctly angular. . . . . 5
- 3 Head and thorax black. Parameres (fig. 81) with subapical sclerotised fold. Spermatheca (figs 83, 84) with small capsule. Brazil, Colombia. . . . . *atra*
- Head and thorax brown or dark brown. Parameres (fig. 99) with subapical sclerotised tooth. Spermathecal capsule larger (figs 122, 125). . . . . 4
- 4 Pronotum less than 1.6 times as long as wide. Lower head surface coarsely punctate laterally. Pronotal punctation relatively even. Genitalia as in figs 88, 99, 110, 122, 123. Brazil. . . . . *gounellei*
- Pronotum more than 1.6 times as long as wide. Lower head surface finely punctate laterally. Pronotal punctation denser apically, often reduced basally. Genitalia as in figs 124-126. Central America. . . . . *rostrata*
- 5 Pronotum more than 1.6 times as long as wide. Spermatheca (fig. 120) with large capsule. Male genitalia as in figs 87, 98, 109. Brazil. . . . . *dentata*
- Pronotum less than 1.6 times as long as wide. Spermatheca (fig. 86) with medium-sized capsule. Male unknown. Brazil. . . . . *tenuissima*
- 6 Clypeus short, separated from frons by very shallow, indistinct depression (fig. 65). Processes of ostium bursae short (figs 128, 130, 132). . . . . 7
- Clypeus long, separated from frons by deep, distinct depression (figs 66-68). Processes of ostium bursae long (figs 134, 136, 138, 140, 143). . . . . 9
- 7 Lateral pronotal ridge suddenly ending apically, thus forming a protruding tubercle or distinct angle in dorsal view (fig. 76). Apex of elytra straight at suture, angle without tooth. Genitalia as in figs 89, 100, 111, 127, 128. Colombia, Peru. . . . . *postica*



- Lateral pronotal ridge passing smoothly into anterior margin without forming angle or tubercle (fig. 75). Apex of elytra distinctly concave at suture, angle with small toothlet. Genitalia different. . . . . 8
- 8 Frontal width ratio more than 1.4. Hypomera of prothorax coarsely, sparsely punctate. Genitalia as in figs 91, 102, 112, 129, 130. Parameres with large sclerotised apical lobes. Spermatheca loop-shaped. Bolivia, Central America, West Indies. . . . . *contorta*
- Frontal width ratio less than 1.1. Prothoracic hypomera at most very finely, sparsely punctate. Genitalia as in figs 90, 103, 113, 131, 132. Parameres without sclerotised lobes. Spermatheca sickle-shaped. Amazon Basin. . . . . *filum*
- 9 Frontal width ratio more than 1.5. Genitalia as in figs 95, 107, 117, 133, 134. Amazon Basin. . . . . *sharpi*
- Frontal width ratio less than 1.4. . . . . 10
- 10 Clypeus lying in a plane much below the one of frons, separated by a transverse deep impression. . . . . 11
- Clypeus lying in about the same plane as frons, separated by more or less round impression. . . . . 12
- 11 Body mostly black dorsally. Genitalia as in figs 96, 104, 114, 135, 136. Venezuela, Columbia. . . . . *nigra*
- Body bicoloured, head and pronotum dark brown to black, elytra light to chestnut brown. Genitalia as in figs 92, 105, 115, 137, 138. Brazil, Argentina . . . . . *semicastanea*
- 12 Body mostly black above. Genitalia as in figs 93, 106, 118, 139, 140. Columbia, Curaçao. . . . . *atratura*
- Body bicoloured or uniformly brown. . . . . 13
- 13 Head and thorax light brown or brown, elytra uniformly brown to chestnut brown. Genitalia as in figs 94, 108, 116, 142, 143. Southern USA, Mexico, Central America, West Indies. . . . . *linearis*
- Head and thorax dark brown to black, elytra often with dark median transverse band. Genitalia as in figs 97, 101, 119, 141. Brazil, Argentina. . . . . *humeralis*

***Taphroscelidia atra* (Grouvelle) comb. n.**

(Figs 63, 64, 69, 73, 77, 79-84)

*Scalidia atra* GROUVELLE, 1916: 13. Lectotype, Brazil: "Vallée des Amazones, Itaithuba" (MNHN: Grouvelle), present designation (examined).

**Description.** Length 7.0-8.5 mm. Colour black, elytra sometimes slightly lighter; surface mostly mat, elytra shiny. Head 1.2-1.3 times as long as wide, bearing a deep, well-defined occipital groove and a fully developed, deep longitudinal line; finely and more or less evenly punctate, slightly denser anteriorly. Clypeus short, separated from frons by round, shallow impression, lying in the same plane as frons, straight anteriorly. Admedian lines short, strongly converging apically, otherwise subparallel or weakly converging. Frontal width ratio 1.0-1.2. Lower head surface with longitudinal groove at base, coarsely punctate. Antenna 0.3-0.4 times body length; segments 1-8 globular or conical, sometimes flattened, 9 and 10 transverse, 11 slightly longer than wide, irregularly rounded apically. Pronotum 1.6-1.7 times as long as wide, evenly widened to apex. Pronotal punctuation similar to that of head; marginal ridge fully developed, weakly sinuate in lateral view, curved apically and fusing with anterior margin. Prosternum coarsely, hypomeron more finely punctate. Elytra 3.0-3.3 times as long as wide, 2.1-2.2 times as

long as pronotum; line 1 distinctly grooved, lines 2-5 consisting of rows of punctures; elytral apex at suture straight, angle without toothlet. Mesosternum, metasternum and abdominal sternites coarsely punctate. Genitalia as in figs 79-83.

*Distribution.* Brazil. *Material examined:* 21 specimens (FMNH, MHNG, MNHN, NHMB, ZMHB, ZMPA). Brazil: Matto Grosso, Rio Caraguata, v.1953 (F. Plaumann); Amazonas, Itaihuba (Hahnel).

*Comments.* A single female specimen from Colombia: Magdalena, Rio Frio (MCZC) differs from Brazilian specimens in the lower head surface bearing a distinct carina in the longitudinal groove (fig. 69), in the lighter elytra, and in the slightly smaller value of the frontal width ratio (0.9). The spermatheca (fig. 84) does not differ significantly from Brazilian material and the specimen is attributed to *atra*. Further material is required to confirm its identity.

### ***Taphroscelidia atratula* (Grouvelle) comb. n.**

(Figs 93, 106, 118, 139, 140)

*Scalidia atratula* GROUVELLE, 1916: 16. Holotype ♂, Colombia [Nouvelle Grenade] (Dejean) (MNHN: Grouvelle) (examined).

*Description.* Length 5-7 mm. Colour black, lower body surface and elytral tips sometimes patchily dark reddish brown; surface mostly mat, elytra shiny. Head 0.8-0.9 times as long as wide, without occipital impression, median longitudinal groove narrow and deep, reduced basally and apically, finely evenly punctate. Clypeus long, separated from frons by deep, round impression, lying in the same or slightly below plane of frons, straight or weakly concave apically. Admedian lines very short, almost straight, curved anteriorly. Frontal width ratio 0.9-1.0. Eyes small, diameter in lateral view as large as or smaller than distance between anterior eye margin and antennal insertion. Lower head surface flat with median basal impression and weakly convex lateral parts, coarsely punctate. Antenna 0.4 times body length; segments 1, 3-7 subglobular, 2, 8-10 transverse, 11 longer than wide, irregularly rounded apically; in males with long ventral setosity. Pronotum 1.3 times as long as wide, unevenly widened almost to apex then narrowed, indistinctly subparallel in the middle, margin weakly sinuate in dorsal view. Pronotal punctation somewhat more sparse than on head, absent from a narrow longitudinal median stripe; marginal ridge distinct in basal half, sometimes persistent up to apex, sometimes becoming indistinct in apical half, passing smoothly into anterior margin, straight or curved in lateral view. Prosternum coarsely, hypomeron finely punctate. Elytra 2.5-2.8 times as long as wide, 2.3 times as long as pronotum; lines 1-4 almost completely grooved, line 5 present as row of punctures. Mesosternum, metasternum and abdominal sternites coarsely punctate. Genitalia as in figs 93, 106, 118, 139, 140.

*Distribution.* Colombia, Curaçao. *Material examined:* 7 specimens (CNCI, FMNH, MNHN, ZMPA). Colombia: 1, Magdalena, 12 miles W Santa Marta, 12.v.1973 (Campbell & Howden); 2, same but 28.iv.1973; 1, Santa Marta, Rodadero, 3.vi.1968, at light (B. Malkin); 1, Departamento Guajira, Merochon 5 km SW Uribia, 20.viii-3.iv.1969, at light (B. Malkin). Nederlands. Antiles: 2, Curaçao, Isla Hato, 25-30.xii.1967, at light (B. Malkin).

### ***Taphroscelidia contorta* sp. n.**

(Figs 91, 102, 112, 129, 130)

*Description.* Length 4.5-8.5 mm. Colour brown to dark brown, elytra slightly to distinctly lighter; surface mostly mat, elytra somewhat shiny. Head 0.9-1.0 times as

long as wide, bearing a very shallow and indistinct occipital impression and deep longitudinal median line reduced at base and apex; finely, evenly punctate. Clypeus short, separated from frons by very shallow, indistinct round depression, lying in the same plane as frons, weakly though distinctly concave anteriorly. Admedian lines short, curved, weakly converging at base and strongly apically. Frontal width ratio 1.5. Lower head surface flat with median basal impression and slightly bulged sides, coarsely, sparsely punctate. Antenna 0.4 times body length; segments 1, 3-6 subglobular, 2, 7-10 transverse, 11 longer than wide, irregularly rounded apically. Pronotum 1.1-1.3 times as long as wide, irregularly widened to apex, lateral margin sinuate in dorsal view. Pronotal punctation slightly sparser than the one on head, absent from a narrow longitudinal median band; marginal ridge fully developed, almost straight or weakly sinuate in lateral view, smoothly passing into anterior margin. Prosternum, including hypomera, coarsely punctate. Elytra 2.4-2.8 times as long as wide, 2.4-2.6 times as long as pronotum; lines 1-4 almost entirely grooved, line 5 present as row of punctures. Mesosternum coarsely, metasternum and abdominal sternites usually finely punctate. Genitalia as in figs 91, 102, 112, 129, 130.

*Material examined.* Holotype ♂, Bolivia: Provincia del Sara, 450 m (J. Steinbach), C. M. Acc. 4552 (ICCM).

Paratypes. Bolivia: 1, same data as holotype (MHNG); 2, same, but 600-790 m, ix.1906-iii.1907 (J. Steinbach S. V.) (ZMHB). Trinidad: 1, Simla, Arima - Blanchisseuse Road, 13.vii.1975, black light trap (J. Price) (FSCA); 2, same but 25.vii.1975; 1, same but 27.vii.1975. Panama: 1, Panama Province, Las Cumbres, 28.v.1975; UV light (H. Wolda) (FSCA).

### ***Taphroscelidia dentata* sp. n.**

(Figs 87, 98, 109, 120, 121)

*Description.* Length 7-10 mm. Colour black, elytral tips slightly lighter; surface mostly mat, elytra shiny. Head 1.2 times as long as wide, bearing a deep, well-defined occipital groove and a fully developed, deep longitudinal line; finely and more or less evenly punctate, slightly denser anteriorly. Clypeus short, separated from frons by round shallow impression, lying in the same plane as frons, straight anteriorly. Admedian lines short, strongly converging apically, otherwise subparallel or weakly converging. Frontal width ratio 1.2. Lower head surface with longitudinal groove at base, coarsely punctate. Antenna 0.3 times body length; segments 1-8 globular or conical, sometimes flattened, 9 and 10 transverse, 11 slightly longer than wide, irregularly rounded apically. Pronotum 1.7 times as long as wide, evenly widening to apex. Pronotal punctation similar to the one on head; marginal ridge fully developed, weakly sinuous in lateral view, curved apically and fusing with anterior margin. Prosternum coarsely, hypomeron finer punctate. Elytra 3.3 times as long as wide, 2.1 times as long as pronotum, line 1 distinctly grooved, lines 2-5 consisting of rows of punctures; elytral apex concave at suture, inner angle bearing a distinct toothlet. Mesosternum, metasternum and abdominal sternites coarsely punctate. Genitalia as in figs 87, 98, 109, 120, 121.

*Material examined.* Holotype ♂, Brazil: Amazonas, Massanary (Hahnel) (MNHN). Paratypes. Brazil: 2, Amazonas, Fonteboa (Hahnel) (MNHN).

### ***Taphroscelidia filum* (Reitter) comb. n.**

(Figs 65, 75, 90, 103, 113, 131, 132)

*Ancistria filum* REITTER, 1876: 39. Lectotype ♀, locality unknown (MNHN), present designation (examined).



*Scalidia filum* (Reitter); REITTER, 1877: 135; GROUVELLE, 1878: 264.

*Scalidia minuta* GROUVELLE, 1916: 14. Lectotype, Brazil: "État de Sao Paulo, vallée du Rio Pardo", xii.1898 (E. Gounelle) (MNHN: Grouvelle), present designation (examined). Syn. n.

**Description.** Length 4-9 mm. Colour brown to dark brown, elytra slightly lighter, sometimes with darker suture and margins; surface mostly mat, elytra somewhat shiny. Head 0.9-1.0 times as long as wide, bearing a very shallow indistinct occipital impression and deep longitudinal median line, reduced apically; finely evenly punctate. Clypeus short, separated from frons by very shallow, indistinct round impression, lying in the same plane as frons, weakly though distinctly emarginate apically. Admedian lines short, mostly subparallel, converging apically. Frontal width ratio 0.9-1.0. Lower head surface flat, with median basal impression and slightly bulged sides, coarsely punctate. Antenna 0.4 times body length; segments 1, 4-7 subglobular, 2 strongly, 8-10 weakly transverse, 3 and 11 elongate, 11 irregularly rounded apically. Pronotum 1.3 times as long as wide, irregularly widening to apex, lateral margin sinuate in dorsal view. Pronotal punctation slightly sparser than that on head, particularly on the disc; marginal ridge fully developed, almost straight in lateral view, smoothly passing into anterior margin. Prosternum coarsely, hypomeron finely punctate. Elytra 2.8-3.2 times as long as wide, 2.4-2.7 times as long as pronotum; lines 1-4 almost entirely grooved, line 5 present as row of punctures. Mesosternum coarsely, metasternum and abdominal sternites finely to coarsely punctate. Genitalia as in figs 90, 103, 113, 131, 132.

**Distribution:** Brazil, Ecuador. **Material examined:** 24 specimens (BMNH, CNCI, MCZC, MHNG, MNHN, ZMPA). Brazil: Santa Catarina, Nova Teutonia, x-xii (F. Plaumann); Squire; Ilha Santo Amaro nr Santos, 28.iii.1912 (G. E. Bryant), G. Bryant Coll. 1919-147; Sao Paulo, Valley of Rio Pardo; Amazonas, Obydos, 2nd half of 1878 (M. de Mathan). Ecuador: Napo, Limonocodal, 250 m.

### ***Taphroscelidia gounellei* (Grouvelle) comb. n.**

(Figs 70, 88, 99, 110, 122, 123)

*Scalidia gounellei* GROUVELLE, 1916: 12. Lectotype ♂, Brazil: Pernambuco, Pery-Pery, 11.xii.1892 (Gounelle) (MNHN: Grouvelle), present designation (examined).

*Scalidia capitalis* GROUVELLE, 1916: 11 Holotype ♀, Brazil: "Vallée des Amazones" (MNHN: Grouvelle), (examined). Syn. n.

**Description.** Length 5-8 mm. Colour dark brown, elytra chestnut brown; surface mostly mat with shiny elytra. Head 1.2-1.3 times as long as wide, bearing a deep, well-defined occipital groove and a fully developed deep longitudinal line; finely punctate, on disc slightly sparser than laterally and anteriorly. Clypeus separated from frons by a shallow, round depression, lying in the same plane as frons or slightly deflexed from it, straight anteriorly. Admedian lines moderately long, weakly curved. Frontal width ratio 1.2-1.4. Lower head surface with deep longitudinal groove at base, flattened apically, coarsely punctate laterally, finer medially. Antenna 0.4 times body length; segments 1 and 2 globular, 3 elongate, segments 4-6 globular, 7-10 transverse, segment 11 slightly longer than wide, irregularly rounded apically. Pronotum 1.4-1.6 times as long as wide, evenly widened from base almost to apex, subapically slightly narrowed towards apex. Pronotal punctation as on head, marginal ridge fully developed, weakly sinuate in lateral view, apex slightly curved and fusing into anterior margin. Prosternum coarsely, hypomeron much more finely punctate. Elytra 2.8-3.3 times as long as wide, 2.2 times as long as pronotum;

line 1 deeply grooved, lines 2-5 present as rows of punctures. Mesosternum, metasternum and abdominal sternites coarsely punctate. Genitalia as in figs 88, 99, 110, 122, 123.

**Distribution:** Brazil. **Material examined:** 4 (MHNG, MNHN, ZMPA). Brazil: Mattogrosso, 1886 (P. Germain); Teffe, Ega, Amazonas, 2nd half of trimestre 1879 (M. de Mathan); Amazonas; Pernambuco, Pery-Pery.

**Comment.** *Scalidia gounellei* is chosen as valid name for the present species as it is represented by a male lectotype in good condition. The female holotype of *S. capitalis* is slightly damaged, which leaves some doubts about its identity.

### **Taphroscelidia humeralis** (Grouvelle) comb. n.

(Figs 97, 101, 119, 141)

*Scalidia humeralis* GROUVELLE, 1916: 17. Lectotype, Brazil: Province of Goyaz, Jatahy (MNHN: Grouvelle), present designation (examined).

*Scalidia ignota* GROUVELLE, 1916: 18. Lectotype ♀, Argentina: Province of Santiago del Estero (Wagner) (MNHN), present designation (examined). Syn. n.

**Description.** Length 3.5-4.5 mm. Colour dark brown to black with elytral base and apex often light to chestnut brown; surface largely mat, elytra slightly shiny. Head 0.8 times as long as wide, without occipital impression, median longitudinal groove reduced at base and apex; finely punctate, slightly sparser on disc, frons largely impunctate. Clypeus long, separated from frons by deep round impression, lying in the same plane as frons. Admedian lines relatively short, curved, converging basally and apically. Frontal width ratio 0.9. Lower head surface flat with median basal impression and weakly bulged sides, coarsely irregularly punctate. Antenna 0.4 times as long as body; segments subglobular becoming gradually more transverse towards apex, segment 11 longer than wide, irregularly rounded apically; in large males segments more inflated. Pronotum 1.3 times as long as wide, strongly widened at base, then almost subparallel or hardly widened to subapically from where it narrows slightly to apex. Pronotal punctation somewhat more sparse than on head, absent from an irregular longitudinal median narrow stripe; marginal ridge distinctly developed in basal half, reduced apically, curved. Prosternum coarsely punctate, hypomerall punctation sparser. Elytra 2.6 times as long as wide, 2.3 times as long as pronotum; lines 1-4 grooved, line 5 present as row of punctures. Venter coarsely punctate, on abdomen sometimes finer. Genitalia as in figs 97, 101, 119, 141.

**Distribution:** Brazil, Argentina. **Material examined:** 10 specimens (CNCI, MNHN, ZMPA). Brazil: Province Goyas, Jatahy; Province Matto-Grosso, 1886 (P. Germain). Argentina: Santiago del Estero, Gran Chaco.

### **Taphroscelidia linearis** (LeConte) comb. rev.

(Figs 68, 72, 74, 78, 94, 108, 116, 142, 143)

*Catogenus linearis* LECONTE, 1863: 70. Lectotype ♀, Mexico: "Cape San Lucas, Lower California" (Xántus) (MCZC), present designation (examined).

*Taphroscelidia linearis* (LeConte); CROTCH, 1873: 4.

*Scalidia linearis* (LeConte); GROUVELLE, 1878: 263.

*Syssitos longiceps* SHARP, 1899: 542. Lectotype, Guatemala: Torala (Champion) (BMNH), present designation (examined). Syn. n.

*Scalidia longiceps* (Sharp); GROUVELLE, 1916: 20, 24.

*Syssitos addendus* SHARP, 1899: 543. Holotype, Guatemala: San Gerónimo (Champion) (BMNH), (examined). Syn. n.

*Scalidia addenda* (Sharp); GROUVELLE, 1916: 24.

**Description.** Length 3.5-9.0 mm. Colour chestnut brown, head and thorax often slightly darker; surface mat, elytra somewhat shiny. Head 0.8-0.9 times as long as wide without occipital impression, median longitudinal groove narrow and deep, hardly reduced basally and apically, finely evenly punctate. Clypeus long, separated from frons by deep, round impression, lying in the same plane as frons or slightly below, concave apically. Admedian lines relatively long and gently curved, converging at base and apex. Frontal width ratio 1.0-1.2. Lower head surface flat with median basal impression and weakly bulged sides, coarsely punctate. Antenna 0.4 times body length, segments subglobular at base becoming gradually more flattened and transverse towards apex, segment 11 subquadrate with unevenly rounded apex; in large males segments more inflated and bearing a long ventral setosity. Pronotum 1.2-1.4 times as long as wide, widening almost to apex then narrowing, margin, in dorsal view, curved at base and apex, straight otherwise. Pronotal punctation similar to the one on head; marginal ridge fully developed, usually straight in lateral view, smoothly passing into anterior margin, entirely visible from above. Prosternum coarsely punctate, sparser and finer on hypomeron. Elytra 2.3-2.8 times as long as wide, 2.3-2.5 times as long as pronotum; lines 1-4 grooved in at least basal half, line 5 present as row of punctures. Venter coarsely punctate. Genitalia as in figs 94, 108, 116, 142, 143. Males from Central America have an apically slightly more pointed median lobe than specimens from Florida (fig. 94). In specimens from Lower California and some material from Mexico the spermathecal capsule is somewhat larger and the chamber distinctly shorter than in other specimens. The spermathecal chamber of the specimens from Florida illustrated in fig. 142 is particularly long.

**Distribution.** USA (Florida, Texas, California), Mexico, Central America, West Indies. **Material examined:** 88 specimens (BMNH, CNCL, FMNH, FSCA, LSUC, MHNG, MNHN, NHMB, ZMHB, ZMPA). USA (Florida, Texas), Mexico, Cayman Islands, Jamaica, Bahamas, San Salvador, Costa Rica, Cuba, Dominican Republic.

**Comment.** *T. linearis*, as defined here, is somewhat variable in respect to its genital morphology. The type of *S. longiceps* and *S. addendus* from Central America have the apex of the median lobe more pointed than specimens from Florida. The lectotype, two paralectotypes and some specimens from Mexico have a relatively large spermathecal capsule and short chamber. The length of the chamber varies also in material from Florida and Texas. In the absence of additional, external, differences, this is considered an intra-specific variation. *S. longiceps* and *addendus* are therefore synonymised with *T. linearis*.

***Taphroscelidia nigra* sp. n.**  
(Figs 96, 104, 114, 135, 136)

**Description.** Length 8-9 mm. Colour black, lower body surface and tip of elytra sometimes dark reddish brown; surface mostly shiny apart from head and pronotum. Head 0.6-0.8 times as long as wide, without occipital impression, median longitudinal groove deep and narrow, reduced basally and apically; finely evenly punctate. Clypeus long, separated from frons by deep transverse depression, lying well below plane of frons, concave apically. Admedian lines very short, strongly curved, converging anteriorly. Frontal width ratio 1.0-1.2. Eyes large, diameter, in lateral view, much larger than distance between anterior eye margin and antennal insertion. Lower head surface flat with median



basal impression and very weakly convex lateral portions, coarsely punctate. Antenna 0.3-0.4 times body length, segment 1 somewhat longer than wide, 2 distinctly transverse, 3-7 subglobular, 8-10 slightly transverse, 11 about as long as wide, irregularly rounded apically; in large males segments more inflated and bearing long setae ventrally. Pronotum 1.1 times as long as wide, widening almost to apex, then narrowing, margin gently curved in dorsal view. Pronotal punctation slightly coarser and sparser, particularly on disc, than on head, absent from an indistinct longitudinal median band; marginal ridge strongly developed in basal half, much weaker in apical half, passing into anterior margin, distinctly curved in lateral view. Prosternum and hypomeron coarsely punctate. Elytra 2.5-2.6 times as long as wide, 2.6 times as long as pronotum; lines 1-4 grooved, line 5 present mostly as row of punctures. Mesosternum, metasternum and abdominal sternites coarsely punctate. Genitalia as in figs 96, 104, 114, 135, 136.

**Material examined.** Holotype ♂, Venezuela: Pie del Cerro, Aragua, 2700-3700 ft, v.1929 (Holt, C. M. Exped.), Carn. Mus. Acc. 8604 (ICCM).

Paratypes. Venezuela: 4, same data as holotype. Colombia: 2, Magdalena, Rio Frio, 1-15.i.1928 (Darlington) (MCZC); 1, same, *Triplaris* association, dead trunks; 1, same but 1-10.i.1929, dead *Triplaris*.

### ***Taphroscelidia postica* (Grouvelle) comb. n.**

(Figs 76, 89, 100, 127, 128)

*Scalidia postica* Grouvelle, 1916: 10. Holotype ♂, Colombia: "Nouvelle Grenade (Dejean)" (MNHN: Grouvelle), (examined).

**Description.** Length 3.5-8.5 mm. Colour dark brown to almost black with apical half or entire elytra light brown; surface mostly mat, sometimes on pronotal and elytral disc shiny. Head 1.1 times as long as wide, bearing a deep indistinct occipital groove and a deep longitudinal line fading apically; finely and relatively evenly punctate, sparser on frons. Clypeus short, separated from frons by very shallow, round impression, lying in the same plane as frons, almost straight to very weakly concave anteriorly. Admedian lines short, subparallel apart from apex where they are strongly converging. Frontal width ratio 1.5. Lower head surface flat in the middle, with basal median impression and weakly bulged sides which are coarsely punctate; punctation sparser and finer in the middle. Antenna 0.4 times body length; segments 1-8 roughly globular or square in outline, segments 9 and 10 transverse, 11 longer than wide with irregular rounded apex, in larger specimens segment 3 distinctly longer than wide. Pronotum 1.2 times as long as wide, strongly, irregularly widened to apex, lateral margin in dorsal view strongly sinuous. Pronotal punctation slightly coarser and more spaced than on head, absent from a narrow longitudinal median band; marginal ridge fully developed, straight in lateral view, not reaching anterior margin, abruptly ending and thus forming in dorsal view sharp angle or tubercle. Prosternum coarsely, hypomeron finely punctate or impunctate. Elytra 2.7 times as long as wide, 2.6 times as long as pronotum; lines 1-4 grooved at least in basal half, line 5 grooved at base continuing as a row of punctures. Mesosternum and parts of metasternum coarsely, abdominal sternum finely punctate. Genitalia as in figs 89, 100, 127, 128.

**Distribution:** Colombia, Peru. **Material examined:** 4 specimens (MNHN, NHMB, ZMHB). Colombia: Muzo. Peru: Sullana, Hda. Mallares, x.1956 (S. Markl).

**Taphroscelidia rostrata** (Sharp) comb. n.  
(Figs 125, 126)

*Syssitos rostratus* SHARP, 1899: 542. Holotype ♀, Panama: Volcan de Chiriqui (Champion) (BMNH), (examined).

*Scalidia rostrata* (Sharp); GROUVELLE, 1916: 20, 24.

**Description.** Length 7-9 mm. Dark reddish brown, elytra reddish brown, darker at base and along suture and margins; surface mat, elytra shining. Head 1.3-1.4 times as long as wide, bearing a deep, well-defined occipital groove and a fully developed deep longitudinal line; finely evenly punctate, finer on frons. Clypeus long, separated from frons by shallow round depression, lying in the same plane as frons, straight anteriorly. Admedian lines short, rounded anteriorly, subparallel elsewhere. Frontal width ratio 1.2. Lower head surface with deep longitudinal groove basally, flattened apically, finely punctate, sides slightly coarser. Antenna 0.3 times body length; segments 1 and 2 subglobular, segment 3 slightly longer than wide, segments 4-6 subglobular, 7-10 transverse, 11 slightly larger than wide, irregularly rounded apically. Pronotum 1.6-1.7 times as long as wide, evenly widened from basally to subapically, from where it is weakly narrowed to apex. Pronotal punctation similar to the one on head, but sparser basally and medially; marginal ridge fully developed, weakly sinuous in lateral view, curved and merging into anterior margin. Prosternum coarsely, hypomeron much finer punctate. Elytra 3.2-3.5 times as long as wide, 2.2 times as long as pronotum; line 1 deeply grooved, 2-5 present as row of punctures. Mesosternum, metasternum, and abdominal sternites coarsely punctate. Female genitalia as in figs 125, 126. Male unknown.

**Distribution.** Panama. **Material examined:** 3 specimens (BMNH, CNCI, USNM). Panama: Canal Zone, Barro Colorado Island, 15.xi.1961 (J. M. Campbell); XX Plantation, 11.ii.1930 (Blackwelder).

**Taphroscelidia semicastanea** (Reitter) comb. n.  
(Figs 92, 105, 115, 137, 138)

*Ancistria semicastanea* REITTER, 1876: 39. Lectotype, locality unknown (MNHN), present designation (examined).

*Scalidia semicastanea* (Reitter); REITTER, 1877: 135; GROUVELLE, 1878: 264.

**Description.** Length 5.5-10.0 mm. Colour of head and prothorax almost black, otherwise dark chestnut brown, shiny apart from head and pronotum. Head 0.7-0.8 times as long as wide, without occipital impression, median longitudinal groove deep, reduced at base, long apically; finely, evenly punctate. Clypeus long, separated from frons by deep transverse depression, lying in a plane well below that of frons, emarginate apically. Admedian lines short, strongly converging apically, irregularly weakly sinuate otherwise. Frontal width ratio 0.9. Lower head surface flat with median basal impression and weakly bulged lateral portions, coarsely punctate. Antenna 0.4 times head width; segments 1, 3-7 subglobular, 2, 8-10 weakly transverse, 11 about as long as wide, irregularly rounded apically; in males with long ventral setosity and, additionally, in large males segments slightly inflated. Pronotum 1.1-1.2 times as long as wide, more or less evenly widening to apex, stronger basally, narrowed apically. Pronotal punctation sparser than on head; marginal ridge strongly developed basally and apically, smoothly passing into anterior

margin, curved in lateral view. Prosternum, inclusive hypomeron coarsely punctate. Elytra 2.5 times as long as wide, 2.4-2.6 times as long as pronotum; lines 1-4 grooved, line 5 present as a row of punctures. Venter coarsely punctate. Genitalia as in figs 92, 105, 115, 137, 138.

*Distribution*: Brazil, Argentina. *Material examined*: 34 specimens (BMNH, FSCA, MHNG, MNHN, ZMHB, ZMPA). Brazil: Santa Catarina; Nova Teutonia; Matto Grosso. Argentina: Misiones; San Luis; Santiago del Estero; Santa Fe.

***Taphroscelidia sharpi* (Grouvelle) comb. n.**  
(Figs 66, 67, 71, 95, 107, 117, 133, 134)

*Scalidia sharpi* GROUVELLE, 1916: 15. Lectotype, Brazil: province of Goyaz (MNHN: Grouvelle), present designation (examined).

*Description*. Length 4.5-7.5 mm. Colour brown to dark brown, elytra sometimes slightly lighter; surface mostly mat, elytra shiny. Head 0.8-0.9 times as long as wide, without occipital impression, median longitudinal line deeply grooved not reaching occiput nor anterior margin; finely evenly punctate. Clypeus separated from frons by deep, transverse, well defined round depression, lying well below plane of frons, concave apically. Admedian lines short, curved, converging anteriorly and posteriorly. Frontal width ratio 1.5-1.6. Lower head surface flat with median basal impression and slightly bulged sides, coarsely punctate. Antenna 0.4 times body length; antennal segments subglobular apart from segments 2, 9 and 10 which are transverse and 11 which is longer than wide with irregularly rounded apex; in large males segments generally thickened bearing long ventral setosity. Pronotum 1.2-1.3 times as long as wide, widening almost to apex, then narrowing, margin gently curved in dorsal view. Pronotal punctation slightly sparser than on head; marginal ridge strongly developed at base fading towards apex, curved in lateral view. Prosternum coarsely, hypomeron finely punctate. Elytra 2.7-3.1 times as long as wide, 2.4-2.7 times as long as pronotum; lines 1-4 almost entirely grooved, line 5 present mostly as row of punctures. Mesosternum, metasternum, abdominal sternites coarsely punctate. Genitalia as in figs 95, 107, 117, 133, 134.

*Distribution*. Brazil, Paraguay. *Material examined*: 14 specimens (FSCA, MHNG, MNHN, ZMPA). Paraguay: Departamento Central, San Lorenzo, 30.xii.1987, u-v light (J. A. Kochalka). Brazil: State of Mato Grosso, Varzea Grande Co., Cuiaba, Parque de Exposicao, 23.v.1972, black light trap (R. Williams); Mineiro Goyaz; Province Matto Grosso, 1886 (P. Germain).

***Taphroscelidia tenuissima* (Reitter) comb. n.**  
(Figs 85, 86)

*Ancistria tenuissima* REITTER, 1876: 40. Lectotype ♀, locality unknown (MNHN), present designation (examined).

*Scalidia tenuissima* (Reitter); REITTER, 1877: 135. GROUVELLE, 1878: 264.

*Description*. Length 8 mm. Head and pronotum dark brown, elytra brown; surface mostly mat, elytra shiny. Head 1.3 times as long as wide, bearing a deep, well-defined occipital groove and a fully developed, deep longitudinal line; finely and more or less evenly punctate, denser anteriorly. Clypeus short, separated from frons by round, shallow impression, lying in the same plane as frons, straight anteriorly. Admedian lines

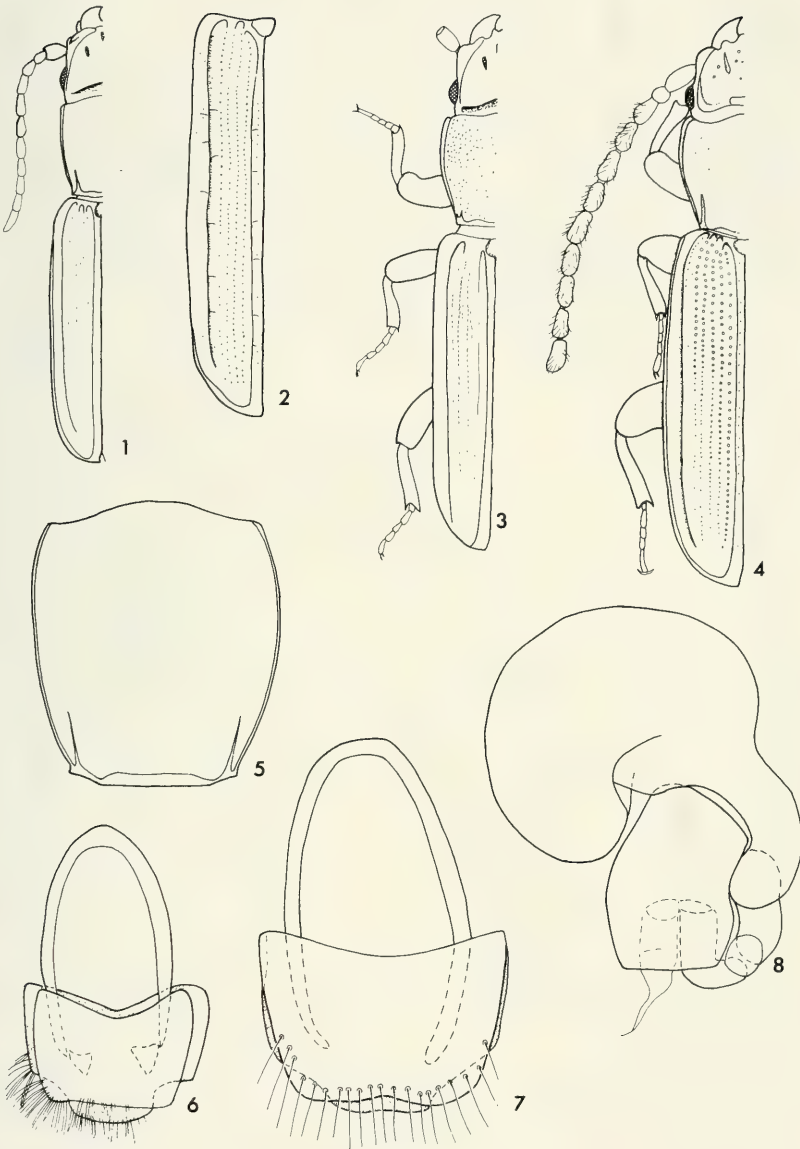


short, wide, strongly converging apically, otherwise subparallel or weakly converging. Frontal width ratio 1.2. Lower head surface with longitudinal groove at base, finely punctate. Antenna 0.3 times body length; segments 1-8 subglobular to conical, 6-8 slightly flattened, 9 and 10 transverse, 11 slightly longer than wide, irregularly rounded apically. Pronotum 1.6 times as long as wide, evenly widened to apex. Pronotal punctation slightly coarser than that of head; marginal ridge fully developed, weakly sinuate in lateral view, curved apically and fusing with anterior margin. Prosternum coarsely, hypomeron more finely punctate. Elytra 2.7 times as long as wide, 2.4 times as long as pronotum; lines 1 and 2 grooved, lines 3-5 consisting of rows of punctures; elytral apex straight to concave at suture, angle sometimes with toothlet. Mesosternum, metasternum and abdominal sternites coarsely punctate. Genitalia as in figs 85, 86. Male unknown.

*Distribution.* Brazil. *Material examined:* 2 specimens (MNHN).

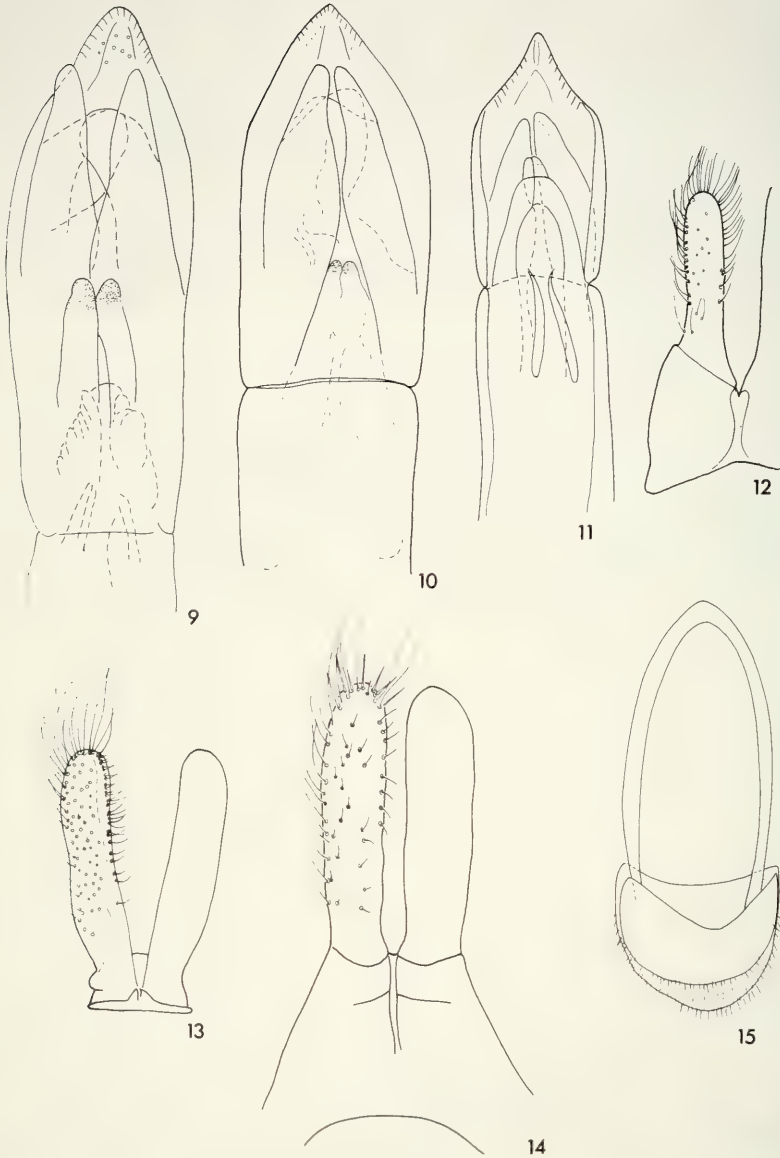
#### ACKNOWLEDGEMENTS

We thank all the persons who kindly provided material for our study or were helpful in various ways during our visits to their institutions (cf. introduction). For useful comments on the manuscript draft we are very grateful to M. C. Thomas and J. Pakaluk. The figures were inked by C. Charvet to whom we extend our sincerest thanks. Most of the work for this paper was realized during DB's stay at ZMPA which was sponsored by the Polish Academy of Sciences under a scientific exchange agreement with the Swiss Academy of Sciences; their support is gratefully acknowledged.



FIGS 1-8.

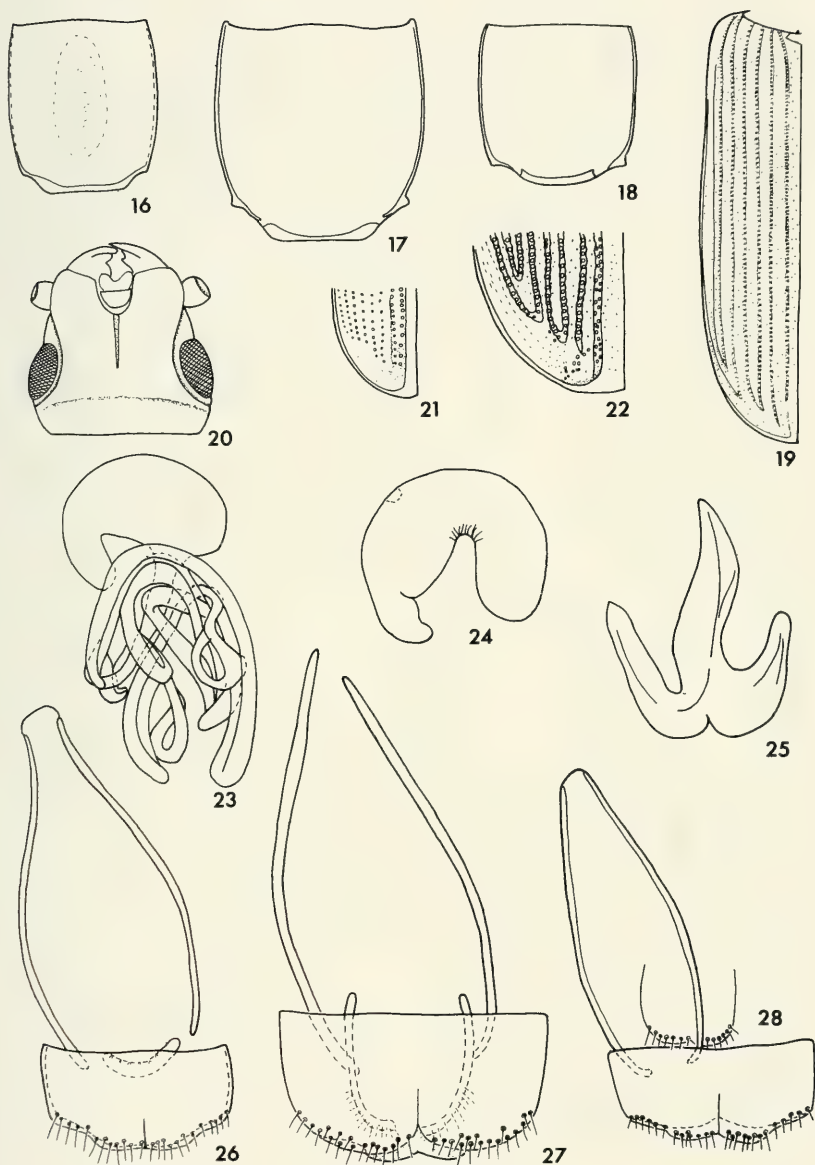
*Anisocerus* spp. 1, 2, 5, 6, *A. carinatus*; 3, 7, 8, *A. dejeani*; 4, *A. feai*. 1, 3, 4, body outline; 2, elytron; 5, pronotum; 6, 7, sternite and tergite VIII; 8, spermatheca.



FIGS 9-15.

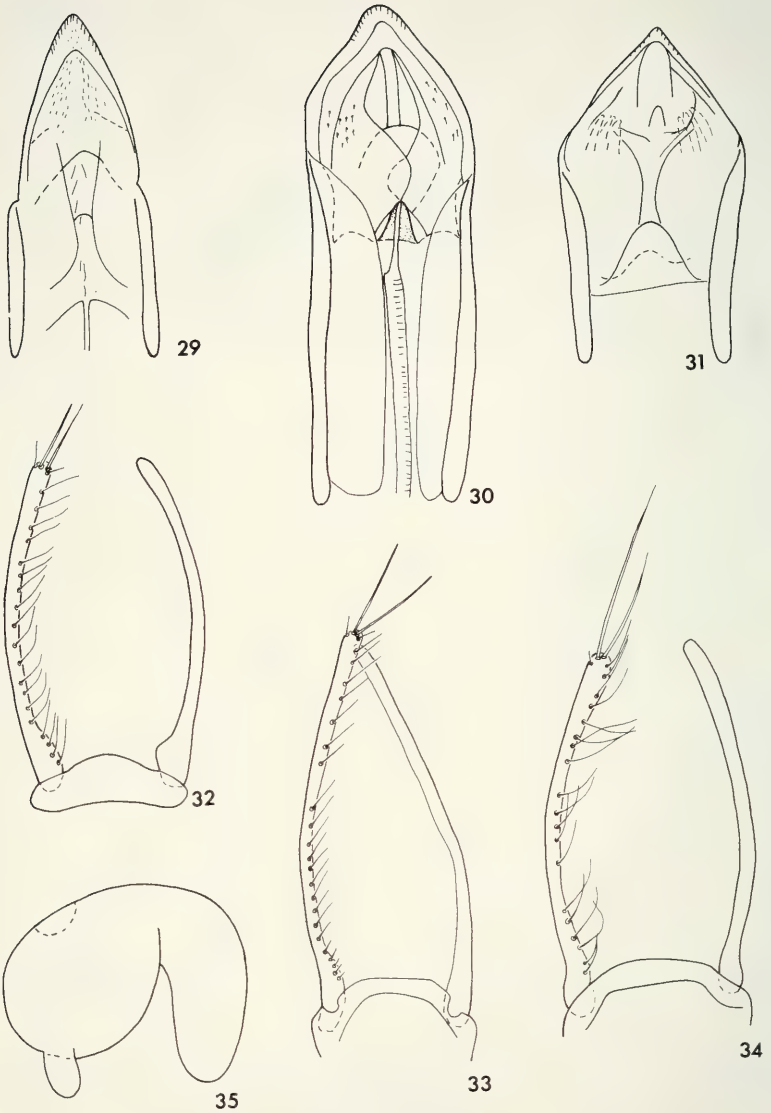
*Anisocerus* spp. 9, 13, *A. carinatus*; 10, 14, *A. dejeani*; 11, 12, 15, *A. feai*. 9-11, median lobe, apical piece; 12-14, parameres; 15, sternite and tergite VIII.





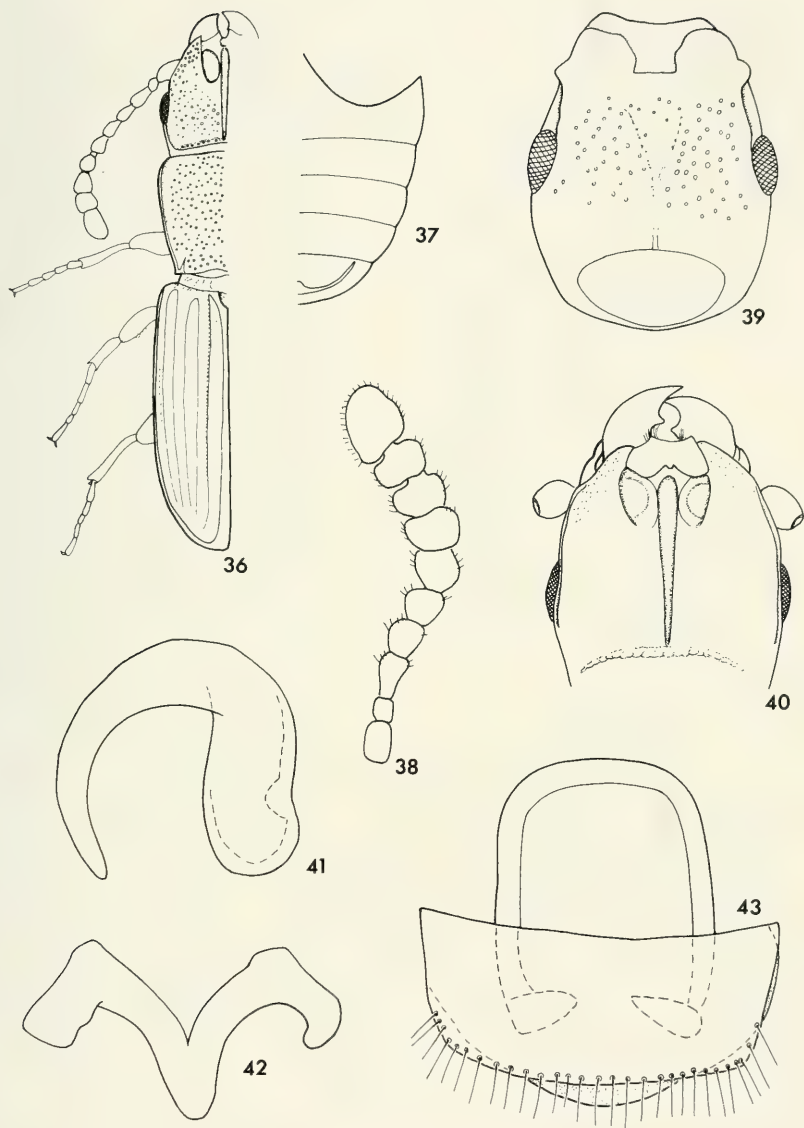
FIGS 16-28.

*Aulonosome* spp. 16, 23, 26, *A. basalis*; 17, 19, 20, 22, 24, 25, 27, *A. insignis*; 18, 21, 28, *A. tenebrioides*. 16-18, pronotum; 19, elytron; 20, head, ventral view; 21, 22, elytral tip; 23, 24, spermatheca; 25, ostium bursae; 26-28, sternite and tergite VIII.



FIGS 29-35.

*Aulonosoma* spp. 29, 32, *A. basalis*; 30, 33, *A. insignis*; 31, 34, 35, *A. tenebrioides*. 29-31, median lobe, apical piece; 32-34, parameres; 35, spermatheca.



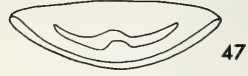
FIGS 36-43.

*Passandrella* spp. 36, 37, 40-42, *P. visenda*; 38, 39, 43, *P. tuberculata*. 36, body outline; 37, abdominal sternites; 38, antenna; 39, head, ventral view; 40, head, dorsal view; 41, spermatheca; 42, ostium bursae; 43, sternite and tergite VIII.

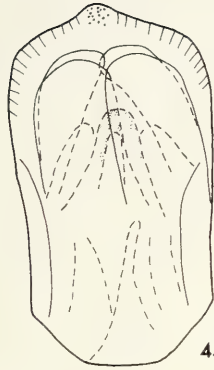




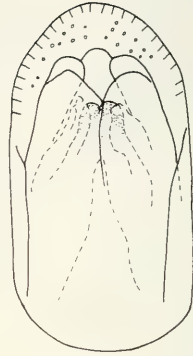
44



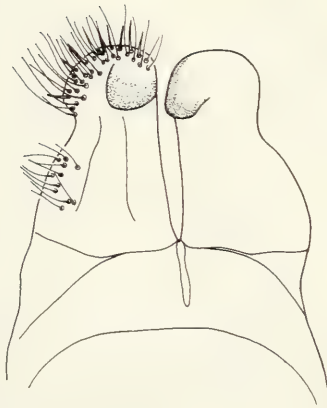
47



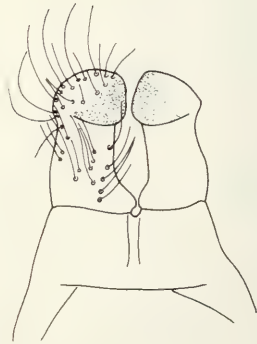
45



48



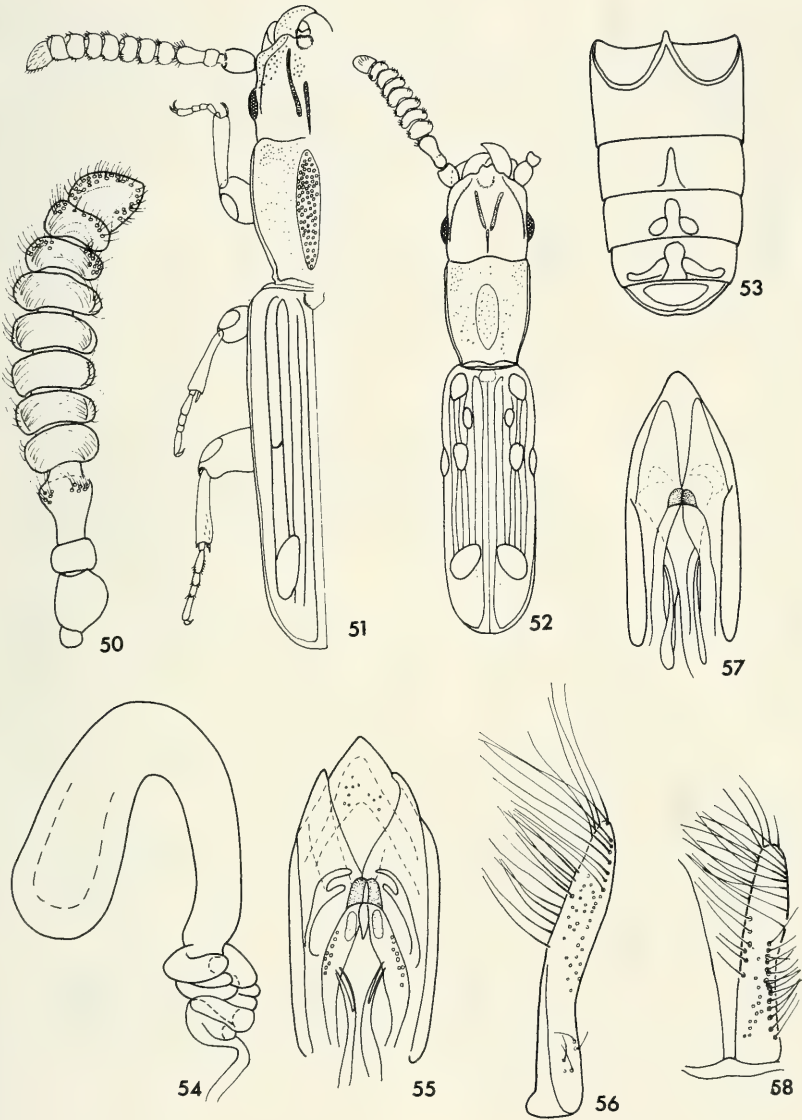
46



49

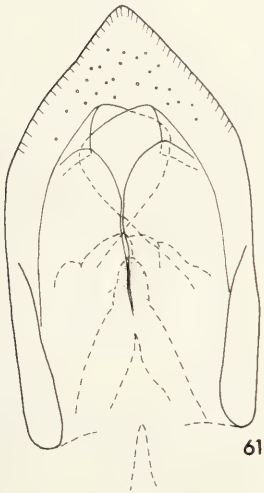
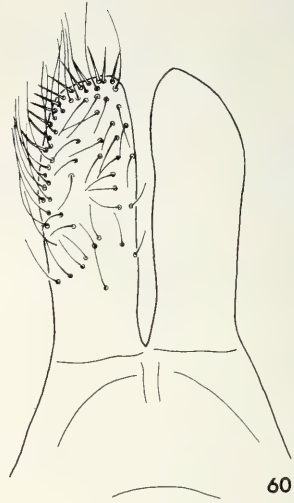
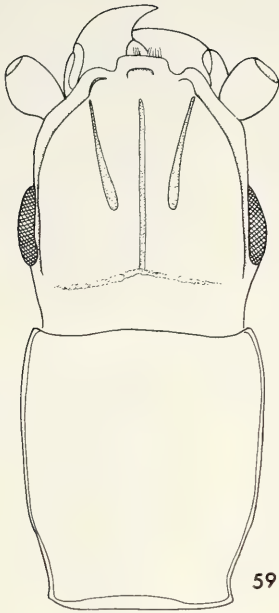
FIGS 44-49.

*Passandrella* spp. 44-46, *P. tuberculata*; 47-49, *P. visenda*. 44, 47, last abdominal sternite; 45, 48, median lobe, apical piece; 46, 49, parameres.



FIGS 50-58.

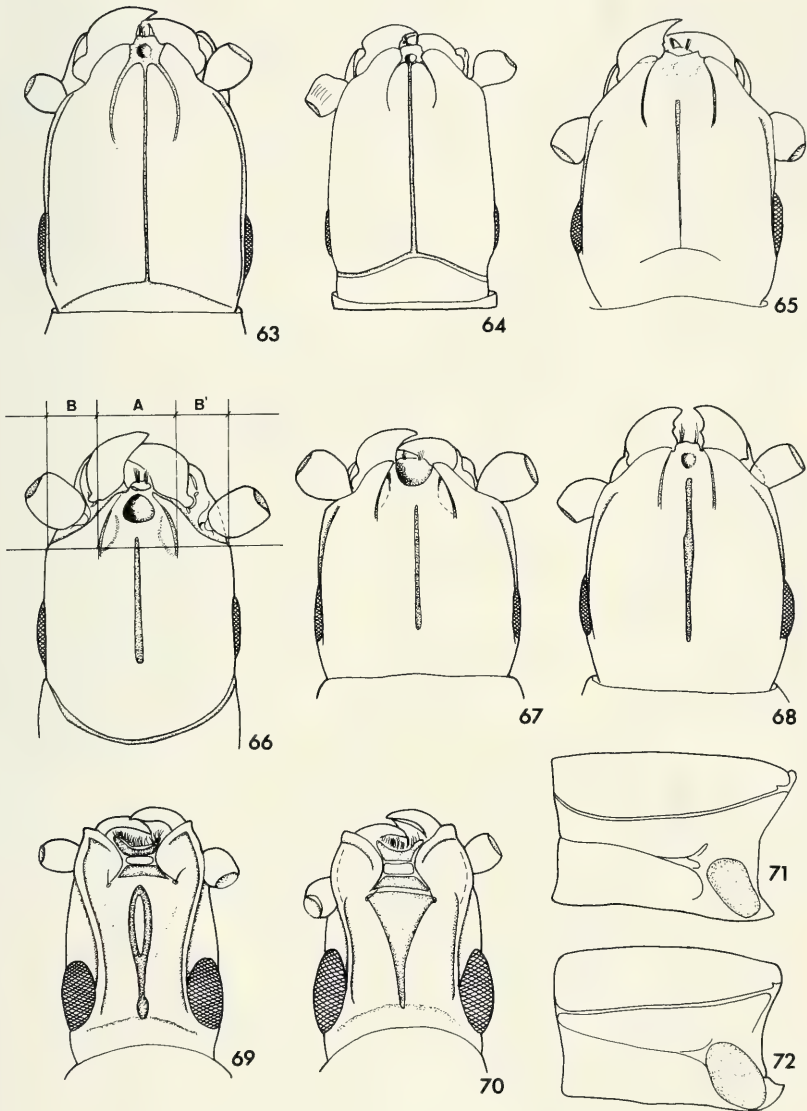
*Passandrina* spp. 50, 52, 53, 55, 56, *P. striblingi*; 51, 54, 57, 58, *P. egregia*. 50, antenna; 51, 52, body outline; 53, abdominal sternites; 54, spermatheca; 55, 57, median lobe, apical piece; 56, 58, paramere.



FIGS 59-62.

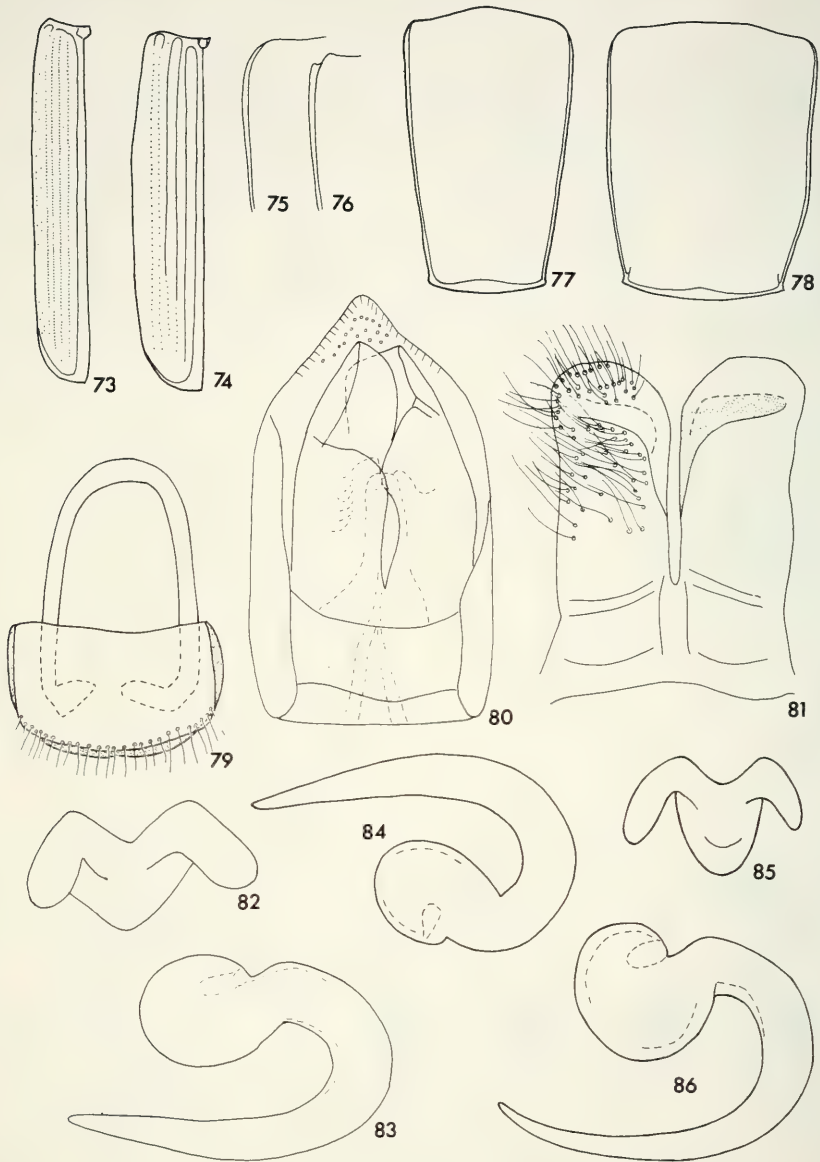
*Scalidiopsis youngi*. 59, head and pronotum; 60, parameres; 61, median lobe, apical piece; 62, sternite and tergite VIII.





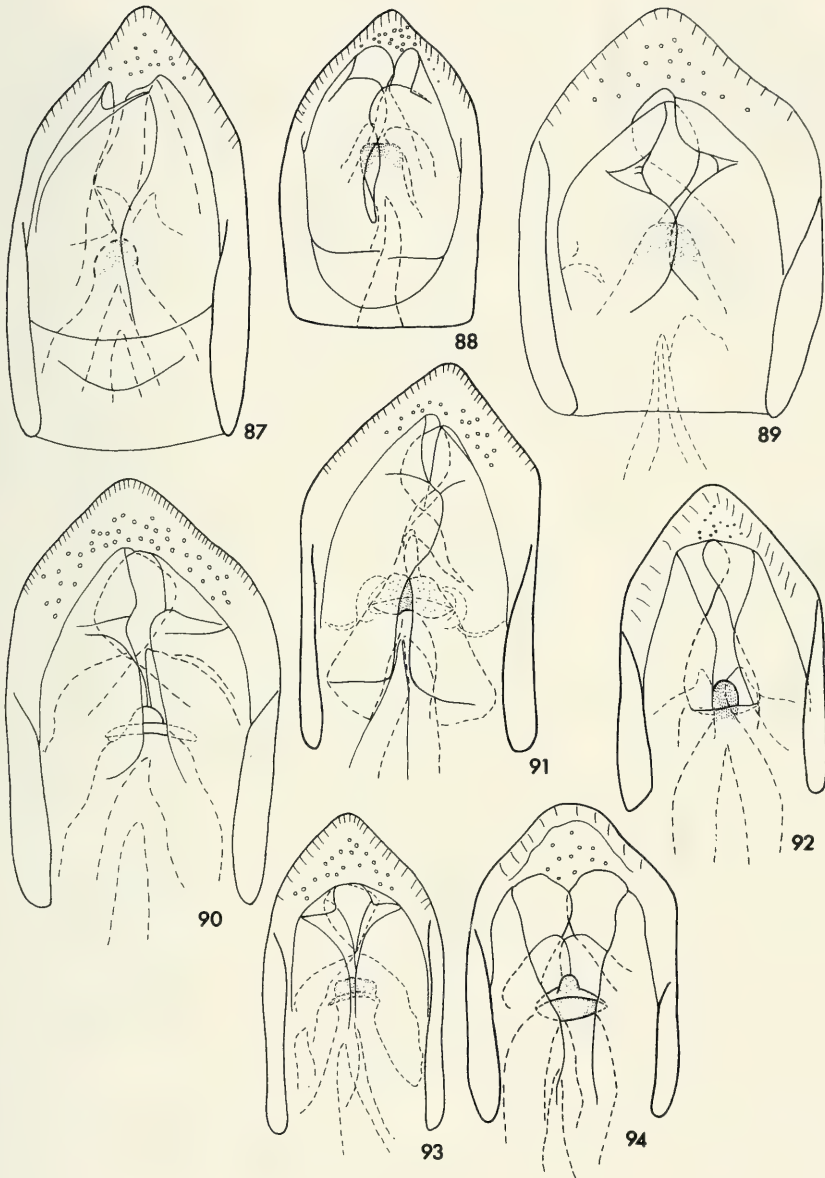
FIGS 63-72.

*Taphrosclidia* spp. 63, *T. atra*, from Brazil; 64, 69, *T. atra*, from Colombia; 65, *T. filum*; 66, 67, 71, *T. sharpi*; 68, 72, *T. linearis*; 70, *T. gounellei*. 63-65, 67, 68, head, dorsal view; 66, head, frontal view; 69, 70, head, ventral view; 71, 72, prothorax, lateral view.



FIGS 73-86.

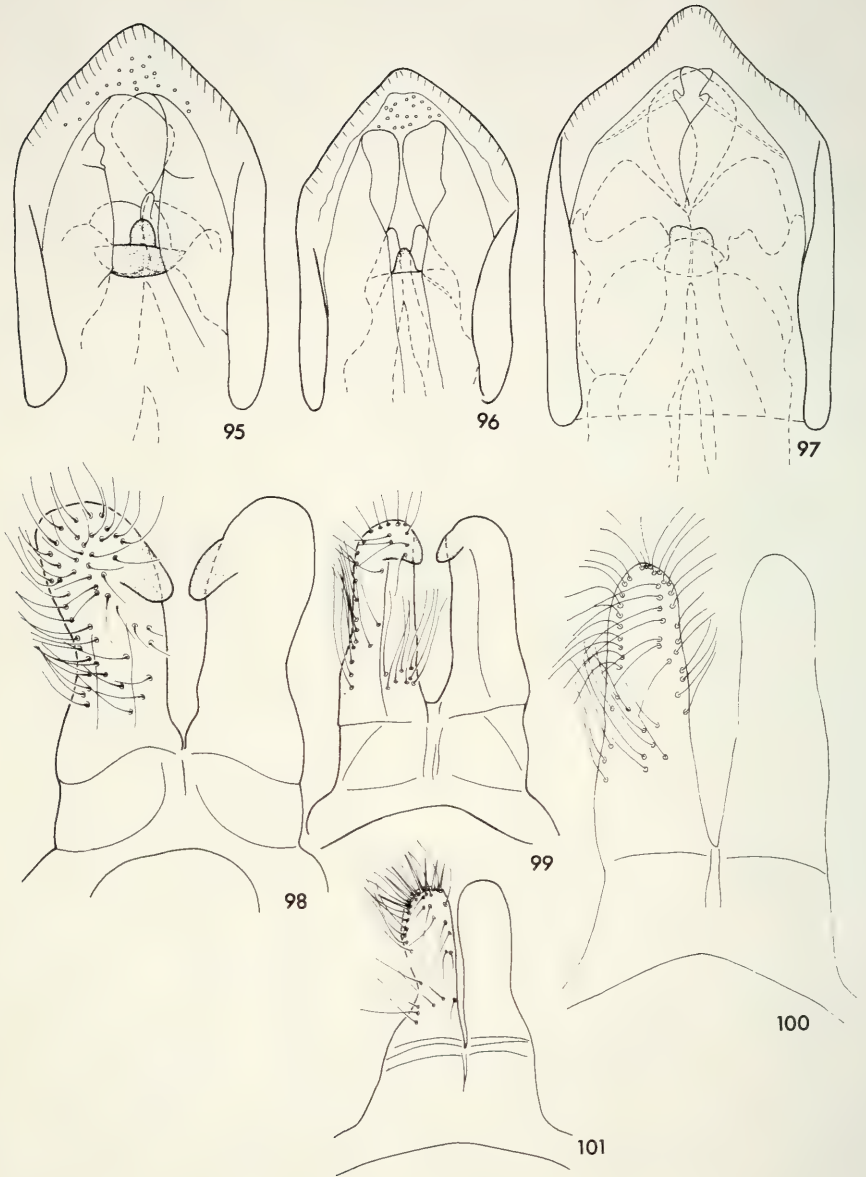
*Taphrosclidia* spp. 73, 77, 79-83, *T. atra*, from Brazil; 74, 78, *T. linearis*; 75, *T. filum*; 76, *T. postica*; 84, *T. atra*, from Colombia; 85, 86, *T. tenuissima*. 73, 74, elytron; 75, 76, anterior angle of pronotum; 77, 78, pronotum; 79, sternite and tergite VIII; 80, median lobe, apical piece; 81, parameres; 82, 85, ostium bursae; 83, 84, 86, spermatheca.



FIGS 87-94.

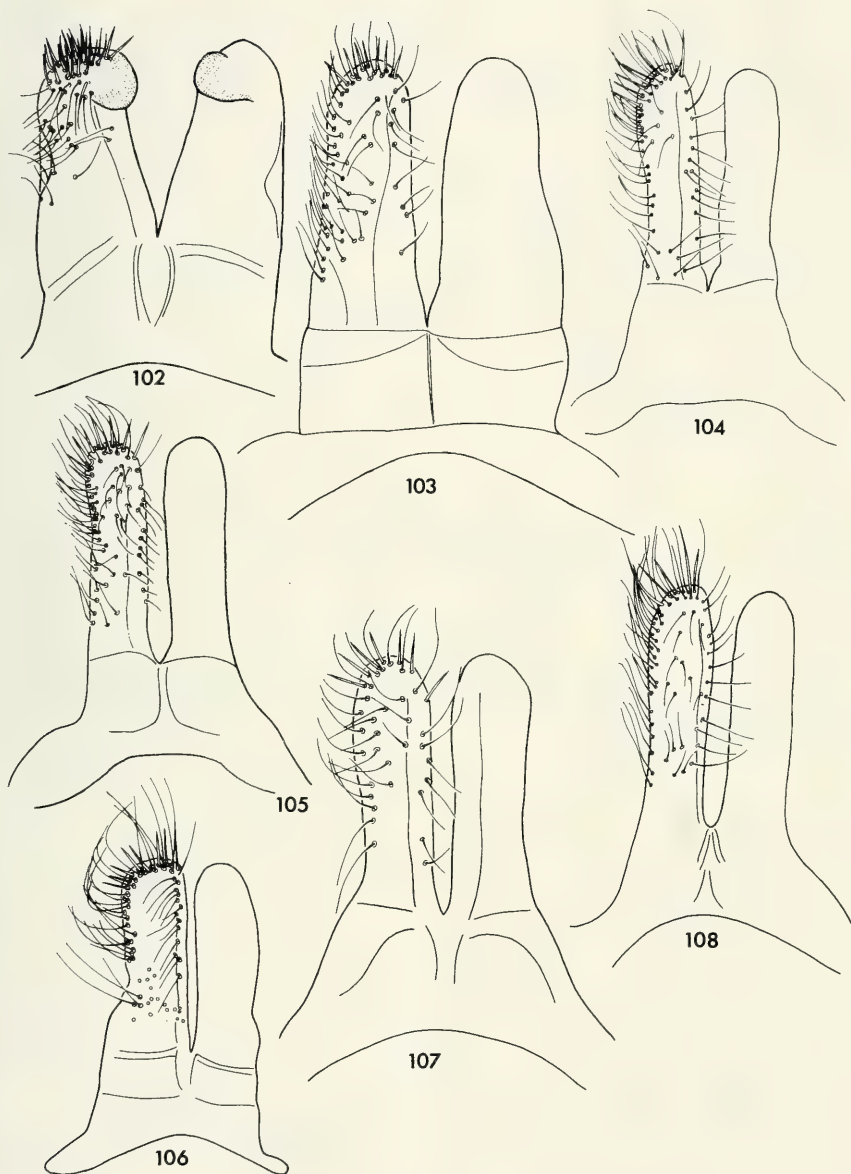
*Taphrosclidia* spp., median lobe, apical piece. 87, *T. dentata*; 88, *T. gounellei*; 89, *T. postica*; 90, *T. filum*; 91, *T. contorta*; 92, *T. semicastanea*; 93, *T. atratula*; 94, *T. linearis*.





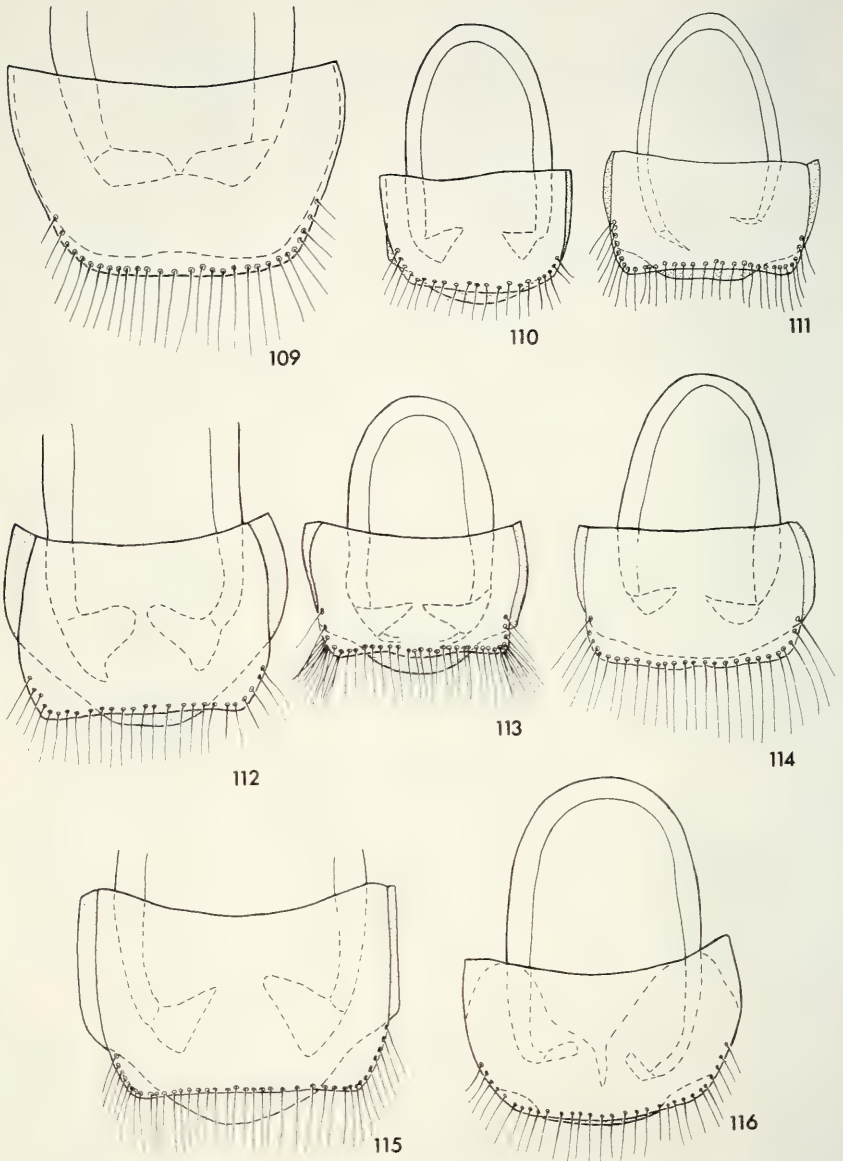
FIGS 95-101.

*Taphrosclidia* spp. 95, *T. sharpi*; 96, *T. nigra*; 97, 101, *T. humeralis*; 98, *T. dentata*; 99, *T. gounellei*; 100, *T. postica*. 95-97, median lobe, apical piece; 98-101, parameres.



FIGS 102-108.

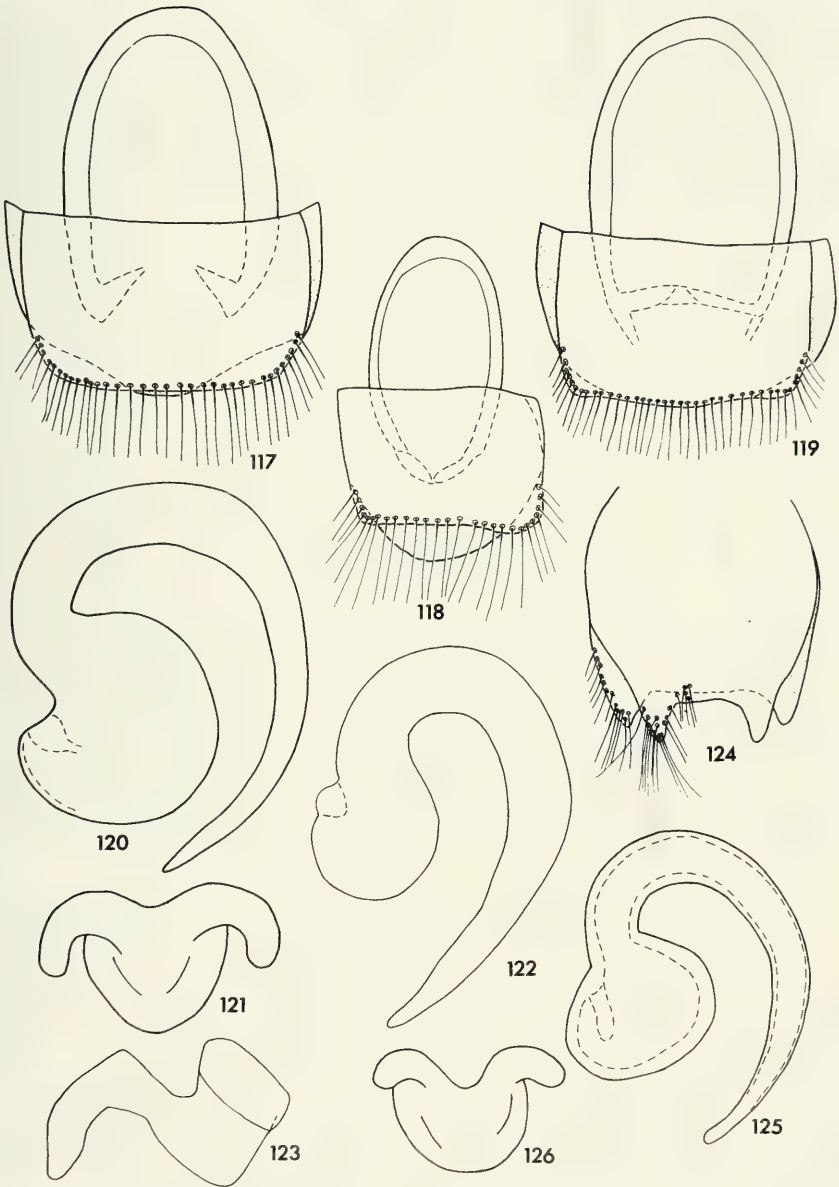
*Taphrosclidia* spp., parameres. 102, *T. contorta*; 103, *T. filum*; 104, *T. nigra*; 105, *T. semicastanea*; 106, *T. atratula*; 107, *T. sharpi*; 108, *T. linearis*.



FIGS 109-116.

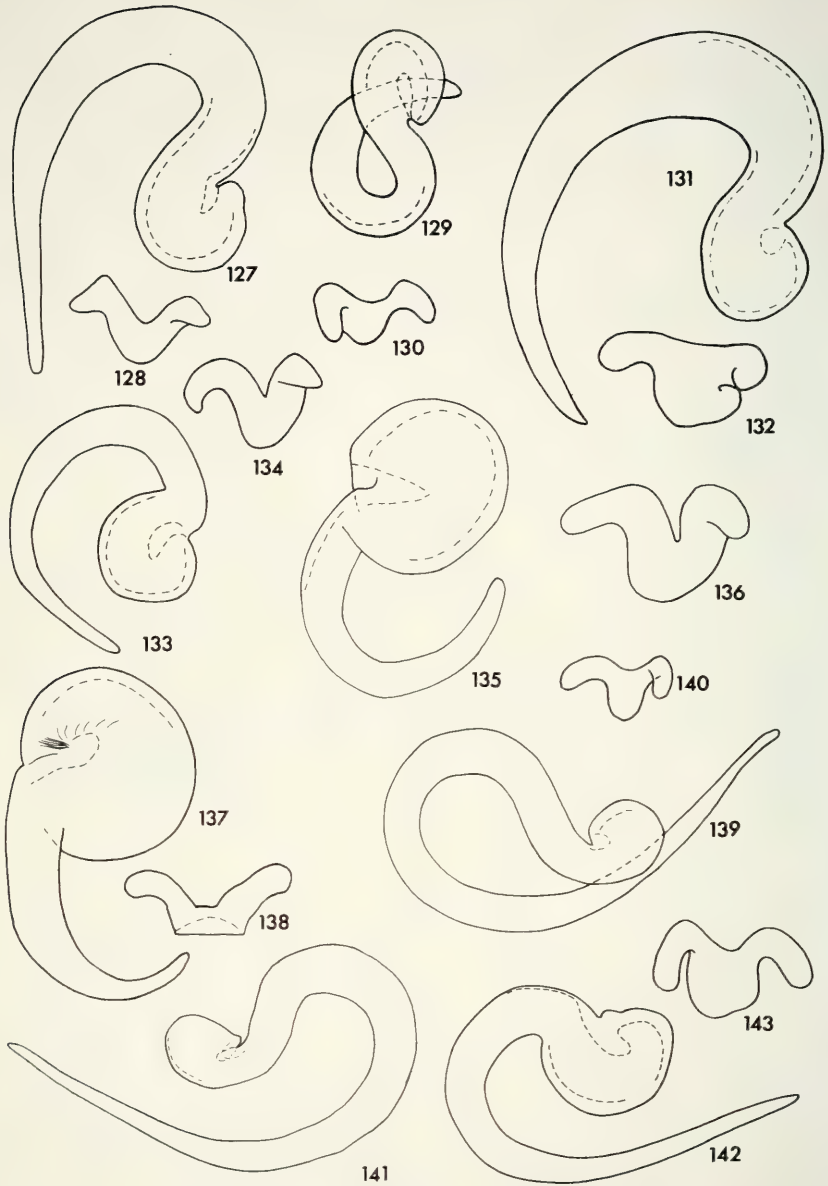
*Taphroscelidia* spp., sternite and tergite VIII. 109, *T. dentata*; 110, *T. gounellei*; 111, *T. postica*; 112, *T. contorta*; 113, *T. filum*; 114, *T. nigra*; 115, *T. semicastanea*; 116, *T. linearis*.





FIGS 117-126.

*Taphrosclidia* spp. 117, *T. sharpi*; 118, *T. atratula*; 119, *T. humeralis*; 120, 121, *T. dentata*; 122, 123, *T. gounellei*; 124-126, *T. rostrata*. 117-119, sternite and tergite VIII; 120, 122, 125, spermatheca; 121, 123, 125, ostium bursae; 124, sternite and tergite VIII of female.



Figs 127-143.

*Taphrosclidia* spp. 127, 128, *T. postica*, 129, 130, *T. contorta*; 131, 132, *T. filum*; 133, 134, *T. sharpi*; 135, 136, *T. nigra*; 137, 138, *T. semicastanea*; 139, 140, *T. atratula*; 141, *T. humeralis*; 142, 143, *T. linearis*. 127, 129, 131, 133, 135, 137, 139, 141, 142, spermatheca; 128, 130, 132, 134, 136, 138, 140, 143, ostium bursae.

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